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LIMA, PERU

TM = Herbarium de la Universidad
Nac. Agraria de Tingo Maria

INSECTS VISITING *ERYTHROXYLUM* SPP. Det. R. Silverglied.

5835 - *Apis mellifera*

5603 A - Scoliideae, Hymenoptera

5603 B - Pompilidae, Hymenoptera

5603 C - Pompilidae, Hymenoptera

5603 D - *Xylocopa* sp., Hymenoptera

5603 E - *Apis mellifera*

5603 F - Scoliidae, Hymenoptera

5603 G - Vespidae, Hymenoptera (possibly *Polistes versicolor*?)

5603 H - *Xylocopa* sp., Hymenoptera

5603 J - *Apis mellifera*

5603 K - bee, ? Megachilidae, Hymenoptera

5603 L - Cyclorrhapha, Calyptratae, Diptera (see Norman Woodley, MCZ 405)

5603 M - Coccinellidae, Coleoptera

5603 N - ? Micropezidae, Diptera

5603 P - ? Micropezidae, Diptera

5603 Q - Lycidae, ? Cantharidae, Coleoptera

det. M. A. Monné 1977

5602-A "La Groma" - Coleoptera, Cerambycidae, Trachyderini, *Aegoidus pacificus* Tippmann

Peru: Dept. La Libertad. Prov. Trujillo. Simbal. Alt. 580 m. 3 mar 76. (El Sacramento)

5600. (3)

Erythroxylum novogranatense
var. **truxillense** (*Rusby*)
n. v. "Coca"

Shrub 2.5 m. tall cult. in open field, under irrigation. Branches erect. Bark pale grey-brown; Lvs. medium green above, pale green beneath. midrib yellow-green, areolae pale yellowish green, concolorous, lines raised, distinct. Fruits ~~red~~ pale green.

Plants 11 yrs. old. Experimental plot planted by Ing. Collazos, Rober picked.

5601 (5)

Erythroxylum novogranatense
var. **truxillense** (*Rusby*)
n. v. Coca

Shrub 2 m. tall cult. in open irrigated field. Bark pale grey brown; Lvs. dark green above, costa yellowish. pale green beneath, glaucous; areolae more yellowish green, costa yellowish-green. Lines distinct. Pedicel

light grn. fruits large, orange.

Planted in 1965 by Drs. Collazos in experimental field.

5602. Erythroxylum
(2) N. V. "Coca"

ECON USM

Shrub 1 m. tall with heavy destruction from "La Groma" a beetle larvae which enters the root and eats away the wood at the base of the plant, eventually killing it.

5602A - La groma: Cerambycidae, Tribe Trachyderini
Aegoides pacificus Tippmann
det. Monné 1977

Insects
5603-A → 5603-Q

Peru: Dept. La Libertad. Prov.
Otuzco. Hacienda Collambay
Alt. 850 m. 3 MAR 1976.
Coca of: Adrián Riveros #1

5603. **Erythroxylum novogranatense** (*Morris*) *Hieron.*
(4) var. **truxillense** (*Rusby*)
N. V. "Coca"

Fotos (A) ECON USM UPS F US

Cult. Shrub 1.7 m. tall in partial shade in irrigated Cocal; ~~Bark~~ Plants arising from several trunks, to 6 cm. diameter. Bark pale grey-brown. Twigs reddish brown. Lvs. medium green above, paler green beneath, areolae yellowish, costa yellowish, linea prominulous by distinct. Petiole pale green. FRS. yellow-orange turning red. Branches somewhat arching.

5604. **Erythroxylum novogranatense** (*Morris*) *Hier*
(5) var. **truxillense** (*Rusby*)
N. V. "Coca"

Foto. ECON USM F BH NY

Cult. shrub 1.5 m. tall in partial shade in irrigated Cocal. Branches many, dense, leafy. Bark pale grey-brown. Lvs. medium green above, pale green beneath areolae & linea distinct.

~~Pedicels~~
Pedicel pale green. Fr. yellow-orange.

5605. Erythroxylum novogranatense var. truxillense
n. v. "coca"

(5)

foto
ECON
USM
F
NCU
NY

Cult. Shrub 2.3 m. tall in partial shade & irrigated coral. Branches open, lax, less leafy than 5604. Lvs. medium dark green, costa yellowish green; beneath lvs. pale glaucous green, areolae a little deeper & more yellowish green; linea distinct. Pedicel pale green. Ripe fruits light yellow-green.

5606. **Erythroxylum novogranatense** var. **truxillense** (*Rusby*)
n. v. "coca"

(6)

ECON
USM
B
VT
F

Cult. Shrub 2.5 m. tall in shade in irrigated coral. Lvs. dark green above, veinlets prominulous; pale glaucous green below, areolae distinct, veinlets dark green outside areolae.

Calyx + Pedicel light green. Petals pale greenish yellow, Corolla cream.
Long styled plant.

5607. **Erythroxylum novogranatense** (*Morris*) *Hieron.*
var. **truxillense** (*Rusby*)
(6)
"N. V. Coca"

(A)
foto.
ECON
USM
F
P
GH

Cult. shrub 1.5 m. tall in irrigated cocal in open. Bark grey-brown. Branches short, dense. Twigs reddish brown. Lvs. smooth, med. dark green above, pale glaucous green beneath, linear, faint but present, areolae concolorous. Pedicel light green. Corolla creamy yellow throughout. Sucker shoots: lvs. bright yellow green, erect.
Long styled plant.

5608. **Erythroxylum novogranatense**
var. **truxillense** (*Rusby*)
(3)
"N. V. Coca"

ECON
USM
F

Cult. shrub 1.0 m. tall in partial shade in cocal. Recently picked. New growth + buds yellow.
(A) 7 K

5609. (4) **Erythroxylum novogranatense** (*Morris*) *Hieron.* var. **truxillense** (*Rusby*)
N. V. "Coca"

foto. Cult. Shrub 1.5 m. tall at edge of cocal. Lvs. medium green above; glaucous paler green beneath, areolar + linea present; some leaves chlorotic from mite infestation. Pedicel light green. Fruits small, yellow orange.

ECON
USM
MO
G

5610. (5) **Erythroxylum novogranatense** var. **truxillense**
N. V. "Coca"

Cult. shrub 2 m. tall in sun ~~position shade~~ in irrigated cocal. Lvs. ~~medium~~ small, medium green above, pale glaucous green beneath. Pedicel light green. Corolla cream. Fruits orange.

USM
ECON
F
MEXU
HUT

5611. (5) *Erythroxylum novogranatense* var. *truxillense* (Rusby) Plowman
N. V. "Coca"

Cult. shrub 3 m. tall in shade in irrigated cocal. Lvs. dark green above, costa paler yellowish green.

NY
ECON
USM
F
NO

pale glaucous green beneath, areolae yellowish green. Sterile.

5612. **Erythroxylum novogranatense**
(5) var. **truxillense** (*Rusby*)
N. V. "Coca"

ECON
USM
F
K
NCU

Cult. Shrub 1.5 m. tall in open irrigated coca. No shade. Lvs. newly formed, bright yellow-green, very membranaceous. Pedicel + calyx light green; Petals cream to creamy yellow, ligulas cream. Ovary ~~orange~~ yellow.
Long styled plant.

5613. **Erythroxylum novogranatense**
(5) var. **truxillense** (*Rusby*)
N. V. "Coca"

(A)

ECON
USM
F
K
NY

Cult. shrub 1.5 m. tall in open irrigated coca in full sun. Lvs. ~~top~~ newly formed, very bright yellow-green above; paler glaucous green beneath. Pedicel + calyx light green. Corolla cream yellow.

Short styled plant.

5614. **Erythroxylum novogranatense**
(2) var. **truxillense** (*Rusby*)
n.v. coca

GRIN
ECON
F

Cult. shrub 1 m tall in open irrigated cocal. Branches erect. ~~Ess~~ Young twigs yellow-green. Lvs. dark green above pale glaucous green beneath.

5615. ~~Erythroxylum~~

(1) Suga

USM
NY
ECON

n.v. "guamo"

Tree 10 m. tall planted in cocal for shade. Fruits shiny, green.

5616. **Erythroxylum novogranatense** (*Morris*) *Hieron.*
(5) var. **truxillense** (*Rusby*)
(A) n.v. "coca"

F
ECON
US
S

Cult. shrub 2 m. tall in open, irrigated cocal. Lvs. newly formed after pruning, bright yellowish green above, pale glaucous green beneath. Pedicels calyx light green. Corolla cream to cream-yellow. SHORT STYLED plant.

5603-5616
Plantation of Manuel Rueros Polo.
35 years old.
Registered + mapped by Empresa Nacional de la Coca.
Irrigated average 1/2 weeks depending on rainfall, sun, etc.

Associated crops:
lettuce, maize, yuca, beans, frijol canario frijol montañero, guaba (pacae = Inga), mango, papaya, cane, platano, Citrus, Spondias purpurea, apple, apricot, palta, fig, grape, onion, maracuja, badea, zapallo, camote, molle.

Plants in sun, harvested early, now freely flowering, visited by many insects:
honey bees, several other bees, monarch butterflies, others.
flies-
lacewings-

diseases: arenilla - spider mites
gusano de tela - tent caterpillers
la groma - beetle larvae
tela de araña - spider webs.

PERU: Dept. La Libertad. Prov.
TRUJILLO. ~~Distr.~~ Trujillo.
Alt. 80 m. 3 MAR 76.

5617. Abrus precatorius
(3) n.v. 'misquina' "guaykullo"

USM
ECON

Vine 4 m. tall cultivated in garden. Sterile. Seeds harvested from same vine.

Grown from seed brought from Rio Marañon below Sartimbamba. Cultivated on margins of cocales for the leaves. Entire vine harvested & dried, during which leaves fall. Several leaves are added to coca quid to sweeten chew by natives, so lime not added.

Peru: Dept La Libertad. ~~Distr.~~ Collambay.

5617-A. Annona
cherimoya
Fruit for seed.

Seed only

Peru: Dept. La Libertad. Prov. Trujillo. Simbal. 4 MAR 76.

5618. Erythroxylum novogranatense var. truxillense
(3)
USM, ECON F
Shrub 1 m. cult. in open irrigated coral. Lvs. very smell., sterile.

5619. Centrum auriculatum L'Her.
(3) det. G. Vilcapoma, May 1976.
GH USM F
Shrub 2.5 m. tall on open roadsides. Fls. pale yellow. Frs. black.

Peru: Dept La Libertad. Prov. Otuzco. Callambay. 4 MAR 76.

5620 Erythroxylum
(3) n. v. "coca"
Freshly dried Lvs. & seeds from drying floor.
cf. 5603.

Coll. T. Plowman + H. Kennedy

Peru: Dept. Junín. Prov. Tarma.
Road from Tarma to ~~La Merced~~.
San Ramón. Carpopata. Alt. 2300 m.
16 MAR 76.

5621. Desmodium vargasianum var. bracteatum Schubert
F USM GH (3)
Roadside herb in thickets.
Fls. magenta-purple.
det B.G. Schubert 1977.

5622. Peperomia galioides H.B.K.
det. R. Callejas 1982
F USM GH (3)
Succulent herb on boulder in full sun. Infl. yellow green.

5623. Oxalis ptychoclada Diels
det. A. Lourteig 1977.
(3) (A)
F USM GH
Herb on steep roadbanks. Petiole + leaflets semi fleshy. Calyx green. Petals yellow, outer surface yellow streaked red within. All 3 style forms present.
(A) 7 K

5624. ~~Cuphea~~? Cuphea cordata R. + P. Lythrac.
det. ~~F. Plowman~~ A. Lourteig 1977.
F USM GH (3)
Subshrub 1.5 m. in thicket on open roadbank. Hypanthium pale red. Petals bright red. Filaments red.

5625: Epidendrum

(A) (3)

Dressler
F
USM
U
AMES

Open exposed roadbanks. Terrestrial herb. Perianth pink-purple, column pink purple. Lip pink.

(A) → K

US
USM
(A)

5626 Tagetes terniflora H.B.K.
(2) det H. Robinson 1976

Herb 2 m. tall in open thickets. Involucre dull green. Ray + disc fls. deep yellow. Styles yellow.

(A) → K

5627.
(1)

Ames (A)

Orchid

Terrestrial herb on large boulder. Sepals light green w. thout whitish with. Petals, lip + column white.

5628 Sebastiania obtusifolia (Kunth) Pax + Hoffm. det g.L. Webster
(4)

Euphorb.

F
USM
GTH
DAVIS

Shrub 2.5 m. much branched. In thicket on open hillside. Immature fruit light green. Latex white

16 MAR 76.

5629. ~~Telipogon~~ TRICHOCERAS E.A. CHRISTENSON 1999 Orchid
(3)

Live (A) Creeping terrestrial herb on large
Church boulder. Calyx lf. yellowish green, re-
Overgaard flexed. Upper petals pale yellowish,
Selby tinged purple. Column densely dark-
F purple-pubescent. Lip ~~and 2 wings~~
USM brownish purple, centrally pubescent,
AMES wings on lip brownish purple with
fine yellowish bands. Anther cap
purple ~~pollinia~~ yellow.
(A) AMES

5630. Pellaea ovata
(3) det E. Cerrate' 76
Terr. herb on open slopes.

5631. Calceolaria tomentosa R. & P.
(3) det. U. Molau 1981.
Herb to 1.5 m. tall among
shrubs on open slopes. Corolla
pale yellow.

5632. Lamourouxia
(1) Sub-shrub on open road bank. Calyx
Corolla deep magenta pink, with pale pink
spotted deep magenta. Filaments white.

Peru: Dept. Junín. Prov. Tarma.
Road from Tarma to ~~San~~ Son
Ramón. ~~Mountain~~ Below Carpapata.
16 MAR 76.

Alt. 2000 m.

5633. Nicotiana sp.

USM (3)
F
GH

Tree 5 m. on open ~~bank~~ barren slope. Calyx light green, brownish at base. Corolla tube greenish white. Limb white.

Alt. 1820 m.

5634. Orthaea ferreyroe A.C. Smith Ericac.
(4) det. J. Luteyn 1976.

(A) Scandent shrub 2 m. tall on steep open slope above quebrada. Lvs. light green, shiny above, ~~light~~ paler beneath. Pedicel & calyx pink. Corolla tube fleshy, deep pink in lower 2/3, white apically. Immature fruit light green.

fotos
F
USM
GH
NY

(A) → NY

U MAR

5635. Clusia

F (3)
USM (A) Tree 4 m. tall in steep slope above ravine. Bracts green. Calyx deep pink. Petals white. Fleshy
(A)?K ~~filaments~~ styles white, ~~ovs.~~

Puya ferruginea (R. & P.) L. B. Smith

5636. ~~P. [illegible]~~ det. L. B. Smith 1976.

(4)
8 labels Terrestrial herb on steep bank
F (A) over ravine. Rachis green. Bracts
USM dark brown. Calyx green with dark
GH brown pubescence, irritating hairs.
US Corolla ~~petals~~ pale brownish purple.
Style + stigma white.

(A)→K

5637. Stelis

F
USM (2) Herb on steep road bank. Perianth dark purple, yellowish at apex.

5638. ?

F (3). Tree 5 m. tall on steep
USM hillside. Fls. cream.
GH

F J
USM J
GH

5639. Desmodium CF. UNCINATUM (JACQ.) DC.
(3) DET. B. G. SCHUBERT 1993
Scabrous Herb along trail, to 1 m. tall. Fls. deep pink.

GH
USM

5640. Desmodium molliculum (HBK.) DC.
(2) det B. G. Schubert 1977.
Herb 30 cm. tall along trail. Fls. magenta turning bluish. FRS. green.

F J

5641. Elaphoglossum TENUICULUM (FEE) MOORE
(1) DET. J. T. MICKEL 1989
Fern on steep bank.

5642. Orchid
(1)
(A)
AMES
Terrest. Herb on open roadside.
Lvs. shiny, mores beneath.
Costa + petiole reddish brown.
Peduncle reddish brown.
Bracts green. Buds yellowish green with golden pubescence.

Alt. 1700 m. 16 MAR

5643. Epidendrum SECUNDUM JACQ.
DET. C. SASTRE 1990

live (3) Terrestrial herb on open roadbanks. Sten purplish brown, lvs. green. Perianth red-orange. Column red orange. Lip orange with yellow calluses.
Chuck USM
Dressler AMES

5644. Epidendrum
(4)

(A) Terrestrial herb on open roadbank. Perianth pale green turning dull yellow. Column green, white at apex. Lip white dotted purple. Calluses lined purple.
F
USM
AMES
ZK

5645. Elleanthus
(4)

(A) Terr. Herb on steep open roadbank. Bracts pale green. Perianth white turning magenta. Lip fringed white distally, yellow orange within. Anther cap dark purple pollinia lavender.
foto
F-2
USM
AMES

(A) AMES

5646. Lupinus
(3)

F
USM
GH

Subshrub 1 m. tall. On open roadbank. Calyx green. Keel blue violet, banner white centrally, marginal thirds blue-violet. Pollen bright yellow-orange.

Alt. 1440 m.

5647. Reevesia thyrsoidea (R. + P.) P. + E. complex
(3) n.v. "platanillo" det. P.J.M. MAAS 76
(A)

Herb 3 m. tall in secondary thicket on hillside. Infl. basal. Basal bracts pale brownish green. Infl. bracts pale red, turning brown, ephemeral. Bracteole deep pink. Calyx tube deep pink, lobes yellow. Corolla + staminode yellow. Immature fruit bright pink, black at maturity, calyx remnant bright pink. Endocarp dull orange. Aril yellow-orange. Seeds black.

Seed Mass Weimes Yellow

TM
U
F.

Stem brownish green, finely ribbed.

Alt. 1200 m. 16 MAR

5648. *Lycianthes* INAEQUILATERA (RUSBY) BITTER
(3) DET. M. NEE 1990
seed.
GH
F

Shrub 1 m. tall in steep hillside forest on rocks. Calyx pale green. Fruits bright red.

5648A Grün? Foto

Peru. Dept. Junín. Prov. Tarma. San Ramón. Alt. 900 m.

5649. *Pogonopus tubulosus* (DC.) Schum.
(4)
F
US
GH
K

Shrub 3 m. tall on steep open roadbank. Calyx light green, enlarged lobes bright pink. Corolla tube dull pink

Peru: Dept. Junín. Prov. Tarma.
Quimirí, along Río ~~Paucartambo~~.
Alt. 705 m. 16 MAR 76. Tulumayo
racemosa P. + E.

5650. Renealmia ~~sp. occidentalis~~
(4) det. P. J. M. MAAS 76.

(A) foto
GH
U
USM
F

Herb 4 m. tall in secondary growth on steep hillside. Lvs. green above, pale yellowish green beneath, tapering in size markedly toward apex of shoot. Stem pale yellowish green. Basal bracts green. Peduncle rachis + pedicels green. Bracts ephemeral, brown. Fruits red. Calyx remnant orange. Aril bright orange. Seeds light brown.

Polygala ACUMINATA WILLD.
5651. ~~Monnieria~~ DET. L. BERNARDI, 1993
(3)

USM
GH
F

Shrubs 1 m. tall on forest margin along road. Fls. white with lavender tinge. Frs. very pale green

5652. Reussia thyrsoidea

(4)

(A)

Seed Maas Waimea USM U GH-2 F

Herb 4 m. tall growing in large clump in clearing along stream in forest. Stem finely ribbed, greenish brown. Lvs dark green above, paler green beneath. Basal bracts dark red turning brown. Rachis greenish white. ~~tepp~~ Infl. bracts salmon pink turning red-brown. Pedicel white. Bracteole pale pink. Calyx yellow, pinkish toward base. Corolla yellow. 3mm. Fruits green, calyx remnant yellow. Mature fruit black, endocarp purple. Aril bright red. Seeds black.

5653. Erythroxylum ulei O.E. Schulz

(6) n.v. "coca del monte"

(A)

Dry lvs- Anat.

TM F USM GH ECON US

Shrubs to 4 m. tall in secondary forest margins. Trunk 4 cm, grey. Branches reddish brown. Lvs. very dark green above, slightly shiny beneath dull glaucous green, elliptic, exstipulate. Frequent. Sterile.

Peru: Dept. Junín. Prov. Tarma.
San Luiz de Shuara. Alt. 700 m
17 MAR 1976.

5654. Dracontium cf. loretense Krause
(5) det. R. Baker 197-

Live Chuck Selby — F J USM J GH

Herb 2 m. tall on steep slope in cafetal. Tuber hemispheric, flat on top, 10 cm. diameter. Petiole brown with white speckle like markings, 1.6 m. ~~tall~~ long. Lvs. much divided, ternate, green. Sterile.

5655. Anthurium croatii Madison
(4)

Live Banta UCh. — F-Z J USM J GH Selby

Terrestrial herb on steep slopes. Spathe green, reflexed. Spadix purple brown, turning green in fruit. det M. Madison 1979.

5656. Brunfelsia grandiflora D. Don
(10) sep. grandiflora

RB U — (4) F J USM J TM GH K ECON AAU — folds COL MICH DUKE P

Shrub to 3 m. tall on steep slope in cafetal and forest next to town. Said

left from
to be wild. Bark light brown. Lvs. dark green above, somewhat shiny, pale green beneath, rubbery. Pedicel + calyx pale green. Corolla tube pale lavender. Limb pale lavender abaxially, ~~deep~~ purple adaxially with white spot at throat 6 mm long, ovate, Fading pure white. Frs. green.
(4) K

5657. Brugmansia versicolor Lagerheim
(3) 4 labels

F ↓
USDA ↓
A-JR

Tree 6 m. tall cultivated in garden. Calyx light green. Corolla white fading apricot pink. Fls. pendulous.

5658. Oeceoclades maculata (Lindl.) Lindl. Orchid
(2)
DET. M.W. CHASE 1987

F ↓
AMES

Terrestrial herb in forest on steep slope. Lvs. mottled very dark green with light green. Perianth dull pink. Lip white distally; lateral margins + center reddish

purple, 2 lateral wings at base of lip cream ~~crested~~ lined red purple. Spur dull brown. Column white.

5659. Zingiber officinalis
F (3) n.v. "guiòn"
ECON
4 Rhizomatous herb on steep slope, naturalized. Rhizome cream. Base of peduncle + petiole red. Stem + peduncle green. Bracts light green with yellow band near apex. Margin red.

5659A. Hibiscus?
(2)
F Cult herb 2 m. tall. Corolla
ECON deep red-purple.

Peru: Dept. Junín. Prov. Tarma. Puente Perené, on road to Colonia de Perené along Rio Perené. Alt. 715 m. 17 MAR 76.

5660. Costus guanaiensis Rusby var. tarmicus (Loes.) Maas
(1) seed Maas Waimea 1991
U
Herb .6 m. tall on steep bank, forest margin. Bracts bright red at base, tip green. Fruits white. Calyx remnant bright red. Seeds black. Aril white. det P. J. M. Maas '76

5661. Desmodium DISTORTUM (AUBL.) MACBR.
F (4) USM GH-2
DET. B. G. SCHUBERT 1993
Erect herb 1 m. tall in thicket, forest margin. Fls. pink

5662. Philodendron
GH (1) voucher Luer Banta Selby
Climbing herb in forest along river. Lvs. dark green velvety above, pale green tinged purple beneath. Sterile.
SEL #57-76-13

5663. Erythroxylum ulei O.E. Schulz

(6)

F J
USM J
K
GH
MO
US

Shrub 1.5 m. tall on open road bank, hanging from cliff. Bark grey. Twigs reddish brown with lt. brown lenticels. Lvs. dark green above, somewhat shiny; pale green beneath, costa yellowish. Petiole light green. Buds pale yellow.

Peru: Dept. Junin. Prov. Tarma. Road from Pampa Usley to Carretera Marginal de la Selva. Alt. 750 m. 17 MAR 76.

GH
SELBY 5664. Philodendron

Tree (2) Herbaceous climber. Lvs. dark shiny green.

Voucher Selby Waiwai 1981

Philodendron

5665. ~~Philodendron~~

GH (1) Terrestrial herb in wet forest
Voucher Selby

5666. Philodendron.

GH (1) Climbing herb in wet forest.
Voucher Selby #57-76-10

Peru: Dept. Junin. Prov. Tarma.
Carretera Marginal de la Selva
near Rio Pereni. Alt. 600 m.
17 mar 76

5667. Philodendron PLOWMANII CROAT
(3)

Live
Banks Selby Waimea Church 1981
H F
F J
GH
USM

Terrestrial herb with creeping rhizome, in small quebrada in forest. Petiole flattened, green, mottled with lighter green stripes, winged with red watery margin. Lf. shiny above, dark green, mottled lighter green between nerves; pale green beneath, pinkish along nerves. Spathe bright pink.

SEL #57-76-11

Peru: Dept. [redacted] Pasco.
Prov. Oxapampa. Between
Puente Pucartambo and Puruz
on road to Villa Rica. Alt. 900
m. 18 MAR 76.

5668. (3) Malpigh.

GH
US (1) Treelet 4 m. tall in forest
MICH (A) on steep slope. Fruits yellow-
orange.

5669. Aphelandra maculata (Tafalla ex Nees) Voss Acanth.

US (1)
(A) Herb in forest margin on steep
slope. Bracts light green Corolla
bright yellow. det. D. Wasshausen 76
(A) 7K

Between Puruz + Mariscal Castillo. Alt. 1000 m.

5670. Callichlamys latifolia (L. Rich.) K. Schum. Bignon.
F (5) det. A. Gentry 1976.
USM
MO (A) Liana 5 m. high in tree
GH on open slope. Calyx spongy,
K deep yellow, inflated. Corolla
light yellow.

PERU: Dept. Junín. Prov. Tarma.
Near Puente Capelo above Rio
Perené. Alt. 700 m. 18 MAR 76.

5671. Pariana
(1)
Live Church
Herb in forest floor on steep slope. Bracts gold yellow green. glumes dark red-brown.

5672. Selaginella ERYTHROPUS (MART.) SPRING
(3)
≠ USM, GH
Herb on steep wet roadbank in forest.

Monstera subpinnata (Schott) Engler.
5673. ~~Epipremnum~~ det. M. Madison 76.
SEL # 57-76-12
(2)
Selby GH
Live Wairea Selby
Climbing herbaceous vine on tree trunk in forest on steep slope. Sterile.

5674. Miconia triplinervis R. + P. Melast.
det J.J. Wurdack 1976.
(2)
USM Us
Shrub 2 m. tall in wet forest along Quebrada. Immature fruits pale green.

capitatus Drake det. Stein 88
~~macrophyllus~~ (G. Don) Wimm.

5675. Centropogon ~~argentatus~~? det. B. Stein 1985.
(2)

foto
USM
GH

Herb 1 m. tall on steep slope along forested quebrada. Bracts shiny dark green. Calyx green. Corolla carmine pink.

5676. Monolena primulaeflora Hook. f.
(2) det. J. J. Wurdack 1976.

seed Wurdack
GH
US

Herb on streambank in forest. Petiole pale green, fleshy. Lvs. dark green above, purple beneath with pale green nerves. Calyx pale green. Corolla white. ~~Fils~~ Stamens white.

5677. Sanchezia lorenthifolia Lindau
(3) det. P. Matheszitis 1981.

F
US
GH

Shrub 2.0 m. tall. Rachis green. Bracts reddish. Corolla yellow.

18 MAR 76

5678. Passiflora riparia Mart. ex Mart.
det Kew 1977.

(A) foto

Live Collinea Banta MoBot

(A) F USM GH K

High climbing liana in wet forest on steep hillside. Pedicel light green. Bracts deep pink. Perianth with dark pink tint. Hairs ~~ground~~ ground dark purple. Corolla banded white and dark purple. ~~Ovary white~~. Androgynophore white turning pale pink. Ovary white. Styles pale pink. Infl. cauliflorous.

CF. P. AMBIGNA HEMSL.
DET. J. E. LAWESSON & L. B. HOLM-NIELSEN 1988

5678-A. Chamaedorea

seed only PBPS!

Palm 4 m. tall in wet forest along brook. Rachis orange. ~~Seed~~ Fruits black.

(A) K

Above Rio Perene,

PERU: Dept. Junin. Prov. Tarma. Between Puente Capelo and San Luiz de Shuara. Alt. 700 m. 18 MAR 76.

5679. Besleria sp. Gesneriac.
(4)
(A) det. H. Wiehler 1981.

Herb in wet forest ravine on steep hillside. Peduncle green. Calyx in fruit bright orange. Berry dark purple.

Live Selby Banks USM GH Selby
seed Selby
A7K

5680. Dieffenbachia

GH (1)

Herb 1 m. tall in wet forest on steep hillside. Lvs. very dark green above, paler green beneath. Juveniles both very pale green stripe at costa. Sterile

Live ~~Chuck~~ Banks Selby

5681. Selaginella ANCEPS (PRESL) PRESL

F (3)
USM
GH

Herb on steep hillside in wet forest.

4 5682. Phragmipedium
Chuck Live only Herb on steep wet roadbank.

Peru: Dept. Junin. Prov. Tarma.
Between Quimiri and La Mercedes
Alt. 700 m. 19 MAR 76 (Above Rio
Tulumayo ~~Perene~~)

Mucronatum Benth.
5683. Erythroxylum ~~comosum O. E. Schulz~~
(♀)

(#)
frt
live
Quech
Wanaca
Lvs-anal.
F U
USM U
GH
US
S
COL
K
NY

Tree 5-6 m. with trunk 6 cm DBH, growing on steep rocky out crop above River. ~~Branches~~ Bark grey brown, irregularly Cracked. Branches arching over, somewhat flattened (& lvs. two ranked). Branchlets (twigs) light green, flattened, flexuous. Stipules scarious-membranaceous, reddish brown, 2-cleft, 2° setulose, caducous the second season. Lvs. dark green, shiny above costa yellowish, major nerves prominulous, dark green; lvs. lighter, yellowish green beneath, shiny, costa pale green, nerves & veinlets dark green, distinct; areolae occasionally distinguished as paler green or slightly concave. Buds yellow (pickled). (lvs. thin coriaceous, pliable)
Strong odor of anise!

VOUCHER
SPECIMEN

mucronatum Benth.

5684. Erythroxylum ~~comosum~~ O. E. Schulz

(1)

live

GH

Seedlings 0.5 - 1.0 m. tall beneath 5683. Erect slender plants branches arising in pairs, perpendicular to axis. Lvs. dark green above, pale green shiny beneath.

mucronatum Benth.

5685. Erythroxylum ~~comosum~~ O. E. Schulz

(8)

Dry

F

USM

GH

S

US

K

NCU

Treelet 4 m. tall on scrubby forest on top of rocky outcrop above river. Bark dull greyish to reddish brown; Twigs lt. green, flattened. Stipules reddish brown. Lvs. dark shiny green above. lighter green shiny beneath. Areolae obscure, represented at times by tiny swellings in surface or by faint lines.

mucronatum Benth.

5686. Erythroxylum ~~comosum~~ O. E. Schulz

F

(4)

USM

GH

MICH

Treelet 5 m. tall in scrubby forest on steep rocky outcrop. Lvs. dark green above, somewhat shiny; lighter yellowish

green beneath, shiny.

5687. Erythroxylum ulei O.E. Schulz
(4) n.v. "chiuche coca"

live
Church
foto
F ✓
USM ✓
GH
U

Shrubs 2 m. tall on rocky ledge above river. Bark light brown. Lvs. dark green above, dull, costa yellowish, leaves pale green beneath costa yellowish, areolae slightly distinct, concave, or obscure, membranaceous. Twigs dark reddish brown. Frequent.

5688. Erythroxylum coca Lam.
(A) (2) n.v. "coca"

live
Church
foto
ECON
US

(A) 57 K

Low shrubs 1 m. tall on shady ledge at base of cliff on rocky outcrop. Only one seen, but probably not planted!

Bark reddish brown (rusty). Lvs. dark green above, dull to somewhat shiny; leaves pale glaucous green beneath, veinlets fine, dark green; areolae very pale green, distinct, linear distinct, costa yellowish green. Lvs. membranaceous.

5689. Erythroxylum citrifolium St. Hil.
(4)

live
Church
(A)
Lus-Anal.
F
USM
GH
K
NCU

Sapling shrubs 1.5-2 m. tall in scrubby forest on steep rocky outcrop above river. Bark greyish brown. Leaves dark green above, costa dark yellow; dull; lvs. beneath lighter yellowish green, costa yellowish, veinlets fine, dark green, areolae obscure. Lvs. firmly pliable.

Stipules dark brown, early caducous.

(Lvs. discoloring to yellowish-brown soon after pulling).

Peru: Dept Junín. Prov. Tarma.
Above San Ramón on road to Tarma.
Alt 1050 m. 20 MAR 76

5690. Aphelandra aurantiaca (Scheidw.) Acanth.
US (A) Lindl. var. aurantiaca
GH (2) Herb 1 m. tall growing on
foto wet rocks in steep ravine.
live: Waimea Banta det D. Wasshausen 1976

(A) 7K
5691. Browallia americana L.
GH (A) Subsp.
fotos Herb in open pasture. Fls.
light blue-violet, pale blue
at throat.

5692. Browallia americana L.
(A) Subsp. (A) 7K
F (3) Herb in open pasture with
US 5691. Fls. deep blue violet, white
GH eye at throat with patch of yellow

Peru: Dept. Huanuco. Prov. Huanuco. Between Carpish and Chinchao. Alt. 1590 m. 12 MAR 76

5693. Muccuna rostrata Benth.
(4) 6 labels det Kew 1977.
F J
USM
TM
K
GH-3
Vine 5 m. long in open secondary thickets. Peduncle pendulous. Calyx brown. Corolla yellow. Fruits brown, with irritating trichomes.

5694. Peperomia
(1)
Selby
F
Epiphyte on tree branch. Lvs. dull green above, deep carmine red beneath. Spikes carmine red.

5695. Annona.
(3)
USM
GH
U
Tree 5 m. tall in secondary forest along quebrada. Fl. buds brown.

PERU: Dept. Huanuco. Prov. Huanuco.
Puente Durand. Alt. 1000 m.
22 MAR 76.

5696. Peperomia foliiflora R.+P.
det. W. Burger 1978
(3)
Fleshy herb on wet banks along quebrada in forest. Infl. white.

E
USM
GH

5697. Peperomia
(2)
Herb in wet forest on hillside to 0.8 m. tall. Stems dark red purple. Petioles pale green. Lf. dark dull green above, pale green beneath. Peduncle pale reddish. Spike yellow-green.

live
seed
Selby
USM
GH

5698. Philodendron. RUIZII SCHOTT.
DET. R. BAKER 1976
live(4) -like with short internodes
Selby Rosette Herb on moist rocks in wet forest. Lvs dark shiny green above, dull yellow-green beneath. Infl. axillary. Bracts deep pink. Spathe lt. green. Spadix pale green.

E
USM
GH

K
SEL # 57-76-17

5699. Anthurium OXYCARPUM POEPPIG ARAC.
(1) SEL # 57-76-20.

Kelly
Iwie
GH

Herb on rocks along quebrada in wet forest. Lvs. coriaceous, pale shiny green beneath; dark green above. Spathe pale green, spadix pale green.

5700. Canna cf. paniculata R. + P.
(12) 2nd (4) specimens

seed-Armstrong Moss
F
USM
U
GH

Herb 5 m. tall in moist secondary thickets. Lf. above dark green; beneath covered with glaucous scurfy indument. Infl. branched, erect, 2 m. tall. Bracts + pedicels green. Sepals green. Corolla tube pale yellow green lobes pale red-orange. Anther petaloid-filament apically ½ red, lower ½ yellow finely dotted with red. Style below yellowish; toward base dotted with red; apically red. 1st Staminode erect, upper ⅓ red, lower ⅔ yellow dotted with red. 2nd Staminode highly reduced yellow dotted red. Fruits light yellow green.

A 7 K

5 fol. Aphelandra aurantiaca Acanth.
(3) (Scheidw.) Lindl. var. aurantiaca.
USM GH US (Herb 1 m. tall on steep moist bank along quebrada. Bracts dark purple-brown. Corolla bright red-orange.

5 fol. Costus guanziensis Rusby ≡ var.
(1) tarmicus (Loes.) Maas
seed voucher Maas U (Herb 3 m. tall in wet forest. Bracts dark red basally 2/3, green apically 1/3. Bracteole dark red. Ovary white to pale green. Calyx dark red.
det P.J.M. Maas '76

5 fol. Psychotria macrophylla R. + P.
F (1) det. D. Simpson 1976.
(Herb 0.7 m. tall in wet forest. Infl. blackish-green. Fruit white.

PERU: Dept. Huanuco. Prov. Leoncio Prado. Between Tingo Maria and Las Palmas. Forest on steep hillside. Alt. 720 m. 23 MAR 76.

Quebrada near Quebrada Las Pavas.

5704. Pariana (4)

(D) Log live-Barta (F) US GH

Herb 2 m. tall along quebrada in wet forest. Bracts dark purple. Infl. light green.

GH TM E US (3) live-Selby seed

5705. Peperomia

Succulent terrestrial herb in wet forest on steep hillside. Petiole peddled. Lvs. dark green above, sometimes with whitish stripes between major nerves, pale green beneath. Spikes green to yellowish green.

5705A. Heliconia

Seed only

Herb 2 m. tall in wet forest.

5706. Cryptochloa unispicalata Soderstrom
(5) det. G. Davidse 1988.
live Banta Herb in wet forest on steep
(A) GH hillside. Spikelets light green.
F US
USM MO
TM K NY

GH 5707. Costus guanaiensis Rusby var.
U det P.J.M. MAAS '76 guanaiensis
F (4)
USM
seed Herb 5 m. tall in wet
WAIMOU forest on steep hillside. Infl
MAAS basal 0.8 m tall. Bracts
dull green reddish near bases.
Bracteoles red. Ovary white.
Calyx red. Lvs. dark green
above with yellow-brown pub-
escence; pale green beneath.

5708. Anthurium oxycarpum Poepp. Arac.
(3) det. T. Croat 1986.
Live-Selby Herb on rocks in wet forest
F Lvs. shiny dark green above, pale
USM green beneath. Spathe and
GH Spadix light green.

SEL 57-76-20 (= 5772)

5709. Pilea sp. Urticac.

F
US

Herb on moist rocks in wet forest. Infl. cream.

5710. Miconia hookeriana Triana
(2) det J.J. Wurdack 1976

seed Wurdack
US01
US

Subshrub 1.5 m. tall in secondary forest. Lvs. dark green above, with white stripe on 3 major longitudinal nerves. Petals white. Fruits purple.

5710A. Balanophor.
(2)

Saprophyte. Infl. dark red.

PERU: Dept. Huanuco. Prov. Leoncio Prado. ~~Quebrada~~ Las Pavas between Las Palmas and Tingo María. 24 MAR 76. Alt. 720 m.

5711. Psychotria pilosa R.+P.
FJ (2) det. D. Simpson 1977.
GH Shrub 2 m. in wet forest. Rachi dark blue-purple. Fruit dark blue.

5712. Loasa tingomariensis Macbride
(6) det Kew 1977.
(A) USM Urticating herb to 1 m. in
TM secondary forest margin. Calyx
K dark green. Petals red orange.
GH
S

(A) K
5721. Dieffenbachia Arac.
GH (1) Herb 30 cm. tall in wet
Tweedie forest. Lvs. dark green splotched
Selby white above.
Bawtr

5713. Mesadenella peruviana Garay Orchid
(1) Herb on steep ~~cliff~~ open cliff along river
(A3) Scape, bracts & rachis
Ames brown. Perianth yellowish brown
HOLOTYPE (A) AMES Bot. Mus. Leafl. Harvard 28(4): 286. 1980.

5714. Renealmia breviscapa P.+E.
(3) det to P. J. M. MAAS 1976.

Live Banta (A) Herb, 1 m. tall in wet forest on steep hillside. Ped-
Seed-Weiman uncle bracts dull pink, rachis
Maas light yellow green. Infl. bracts
USM-Steele light green. Pedicel + ovary
GH light green. Ovary black at
U maturity, calyx in fruit yellow
orange.
(A) PK

US
USM
F 5715. Cryptochloa Gram.

Live (3)
Banta (A) Herb on steep cliff along river.

5716. Justicia stuebelii Lindau Acanth.
(2) det. D. Wasshausen 1976

USM US (A) Herb in open sandy place along river. Calyx green. Corolla tube pale magenta. Limb deep magenta with white on lower lip.

Aphelandra mucronata (R.+P.) Nees
5717. ~~Sanchezia~~ det. D Wasshausen 1976 Acanthac
(3)
USM (A) Spiny herb along river in
GH forest, very frequent. Rachis
US purplish green. Bracts + calyx
green. Corolla tube yellow at
base, red above, lower lobes reflexed
yellow, upper hood petal red.
Filaments + style red.

US 5718. Pariana
USM (2)
(A)
(live Herb on steep rocky outcrop.
Banta Bracts dull brownish green.
Leaves light green.

5719. Peperomia lancifolia Hook.
F (2) det. R. Callejas 1982
USM Herb on moist bank in
forest. Lvs dark green above,
paler green beneath. Rachis
+ spikes light green.

vel aff.
5720. Peperomia foliiflora R.+P. ~~Hortic~~.
Succulent herb on moist bank.
GH Petiole, major vein beneath +
(A) K infl. dark red purple. Lvs. dark green
above, very pale green beneath.

5720. Anthurium alienatum Schott Arac.
det. T. Croat 1982.
GH (1)
Live under Terrest. herb ± forest to
Selby 75 1.5 m. tall. Lvs. very dark
#60-767 dull green above, pale green beneath.

5721. Urceolina microcrater Kraenzl. Amaryll.
det. R. Ravenna 1982.
(1)
Live (A) Bulbiferous herb on steep
Banta open cliff. Bulb dark brown
GH without, white within. Scape
pedicels + ovary light green.
photo → F Bract very pale green. Corolla
tube light yellow in basal 2/3,
upper third light green with
white margin. Filaments +
style white Fls. pendulous.
(A) → F

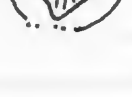
5722. Justicia Acanth.
(2)
USM ✓
US (A) Herb 1.5 m. tall along
river at base of cliff. Rachis
+ calyx green. Corolla pale yellow-
green.

5723. Orchid
(1)

(A) Terrestrial herb in wet
Lwis forest. Lvs. dull dark grn above, splotched
Selby pale grn; paler dull green
beneath ~~stove~~, petiole whitish. ~~Roots~~
Ames Scape dark red with white hairs.
Bracts dark red basally, grn
apically. Ovary ~~dark~~ grn. Sepals
white, tipped red. Lip ~~white~~ +
upper petal white Column yellow
(A)7 AMES

5724. Gesneriac.
(2)

USM (A) Foto! Herb appressed to moist
" rock face along stream. Lvs. dark
GH grn to med. green above, some-
times with lighter grn area at
base. Calyx green. Corolla tube
yellow. Lobes ~~dark~~ pale violet
with dark violet basal patch at
center.



(A)7 K

Araceae

5725. Philodendron fibrillosum Poepp.
(3) det. T. Croat 1982.

F ✓ USM GH

Tree Selby

Climbing epiphyte on tree trunk, roots encircling tree. Lvs. dull dark green above light green beneath. Peduncle light green. Spathe greenish green.

5725A. ~~Fittonia~~ albivenis
(1)

Vouch Tree

Bauta SELBY

Low herb in wet forest. Lvs. dark blackish green above with pink costa + nerves. Pale green beneath. Bracts green. Fls. White. (= 13279. in cult.)

5726. Dichorisandra
(3)

F ✓ USM GH

(A)

Herb 1 m. tall along trail in forest. Calyx green tinged dark blue-purple. Petals white at base, blue above. Anthers blue. Calyx in fruit dark blue purple. Fruits light green.

(A) ZUS

5726.A. Dimerocostus

Seed only
Waimea

Herb 4 m in wet forest. Bracts green. Capsules cream.

5727. Erythroxylum coca Lam.

F √ (4)
USVI
US
Gtt
ECON

Cult. shrub 1.5 m. tall in semi abandoned clearing. Branches light brown. Twigs reddish brown. Lvs. light yellowish green above, pale glaucous green beneath. Fls. greenish yellow.

5727A. Caladium

Selby live only

Terrestrial herb in wet forest. Lvs. dark green, rugose.

5727B. Heliconia Ingulata R. & P.
det. J. Kress 1987.

seed only

Herb 4 m. tall in wet forest. Bracts red. Fruit ~~seeds~~ blue-black

Kress
Waimea
1981! → 81, 686
FTG81-408A - 1985!

PERU: Dept. Huanuco. Prov. Leoncio Prado-Tingo Maria. Bosque de la Universidad Agraria de Tingo Maria Alt. 700-750 m. 25 MAR 76.

GH 5728. Anthurium

(1)

Live WAIMEA SELBY

Terr. Herb 1 m. tall in wet forest. Spathe light green, suberect. Spadix yellowish green. Petiole terete. Lfs. smooth, shiny dark green above, lighter green beneath.

5729. Anthurium

F USM GH

(3)

Live 5720A

Terrestr. herb 1 m. tall in wet forest. Petiole angled, winged, penta-hexagonal in section, pulvinus lt. green to reddish. Lf. dark green above with velvety sheen, pale green, dull beneath. Spathe light green suberect. Spadix green.

5730. Ruellia

Acanth.

US USM GH

(3)

Herb 1 m. tall growing along quebrada in forest-clearing. Calyx + bract. rachis dark green. Corolla white.

5f31. Pariana

Live Banta F ✓ US GH (3)

Herb in wet forest, Stem cream. Bracts purple. glumes cream. Anthers yellow.

F ✓ USM ✓ GH 5f32. Selaginella BOMBYCINA SPRING (3)

Herb in wet forest.

GH ✓ F ✓ USM ✓ Seed. 5f33. Solanum (3)

Sub shrub 1 m. tall along stream in forest, partial sun. Fruits spherical, dark wine red.

5f34. Spathiphyllum

F ✓ GH (2)

Herb 1.5 m. tall in wet forest. Spathe reflexed, pale green abaxially, whitish adaxially. Spadix erect, yellow orange.

5f35. Leandra chaetodon (DC.) Cogn. Melast.

F ✓ USM ✓ TH US GH (5)

Shrub 3 m. tall in wet forest. Ovary + calyx light green. Petals + filaments white Det Wurdack 76

Clidemia allardii Wurdack

5736. ~~Tococa~~ det. J.J. Wurdack 76.

F J (5)
USM J
TM
Seed - Wurdack Waimea

Shrub 2 m. tall in wet forest. Fruits dark blue purple at maturity. Calyx light green. Petals white. Ant plant.

auto ⇒ Bill Burem

(A) → K

~~Faramea~~ harmsiana Standl.

5737. ~~Psychotria~~ det. D. Simpson 1977.

F J
USM J (4)
TM
Seed
Waimea

Shrub 2.5 m. tall in wet forest. Fruits light green turning dark blue purple at maturity.

(A) → K

5737-A. Anthurium brevipedunculatum Madison

GH
live (1) wood
Selb. only
60-76-4

climbing epiphyte. det. M. Madison 1984.

5738. ~~Tococa~~ Maieta guianensis Aublet
(2) det JJ Wurdack 76

Seed
Wurdack
GH
US

Shrub 2 m. tall in wet forest. Fruits red turning black. Ant plant.

auto ⇒ Bill Burem

5739. Miconia centrodesma Naud.
(3) det. J.J. Wurdack 76.
Seed Wurdack Waimea
Shrub 2.5 m. tall in wet
US 1
GH forest. Lvs. dark green above, pale
green beneath. Rachis red. Im-
mature fruits pale violet. Mature
US fruits dark purple-black.

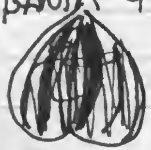
5740. Theobroma subincanum Mart.
GH (1) det. T. Plowman 1978
Seed Waimea
Tree 5 m. tall along strea
seed cerenea in forest. Partial sun. Lvs. shiny
light green above, pale whitish
green beneath with yellowish brown
costa & nerves. Fruit light
brown.

5740A Aphelandra aurantiaca (Scheidw.) Acanth.
US (1) Lindl. var. nitens (Hook.) Wasshausen
seed Herb in wet forest on hillside.
live Lvs. dark blackish green above,
WAIMEA shiny, with finely drawn major
BANK nerves; Red-purple beneath.
det. D. Wasshausen 1976.

5744 - Dichorisandra
(2)

live, USM GH
WAIMEA BANTA
Climbing herbaceous vine. Lvs. dark green above, ~~dark red~~ purple beneath. Fruits still green.

5742. Geogenanthus undatus Commelin
(2)

live F
WAIMEA BANTA GH

Herb on forest floor. Lvs. bullate dark blackish green above w/ pale green stripes parallel to costa; deep red purple beneath. Sterile.

5743. Calyptrocarya bicolor Cyperaceae
(H. Pfeiff.) T. Koyama
BANTA - (2)
F
NY
Sedge in wet forest. Seeds black. det. T. Koyama 1977.

5744. Cyperus hoppii folium Clitten Cyperaceae
det. T. M. Koyama 1977.
BANTA (2)
NY
GH
Sedge in wet forest. Lvs. purple at base, dark green above.

5744A. Philodendron
live only
Selby (1)
Banta
Climbing epiphyte. Lvs pale metallic lavender.

5744B. ORCHID

live only Terr. herb in wet forest.

Sellow

magnifica?

5744c. Piper metallica

live only Beuta Herb in wet forest. Lvs. shiny above, dark blackish green, pale green beneath.

PERU: Dept. Huánuco. Prov. Leoncio Prado. Bella: Cueva de las Lechusas, along Rio Monzón. 26 MAR 76.

5745. Erythroxylum fimbriatum Peyr.

F (6)
WSM
GH
ECON
K

Young shrub 1 m. tall at edge of forest along trail to the Cueva. Branches horizontal, light brown. Twigs pale green. Lfs. held at 30-45°, dark green, semi shiny above, pale glaucous dull green beneath, costa lighter yellowish green. Areolae faintly distinct slightly ~~darker~~ more yellowish green. Texture: tough pliable, thin. Margin strongly undulate.

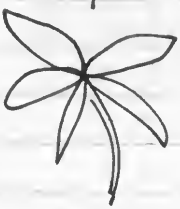
VOUCHER SPECIMEN

5746. Peperomia (?) hispidula (Sw.) A. Dietr.
F (4) det W. Burger 1981.
USM (A)
GH succulent herb on steep moist
cliff. Whole plant + inflorescence
light green.

5747. Solanum nemorense Dunal
F (5) det. Nee + Plowman 1979.
USM Armed Scandent herb in roadside
GH thicket. Corolla white. Fruits
MO bright orange.

5747A. Saracha
seed only Herb, scandent, 1 m. tall.
Frs. purple.

5747B. Anthurium crostii Madison
live only (1)
Selby Terrest. herb in wet forest.



PERU: Dept. Loreto. Prov. ~~Cnel~~ Coronel. Portillo.
- Between La Divisoria and Boquerón,
Road to Pucallpa. 27 MAR 76.

Alt. 1050 m.

5748. Elleanthus (4)

F-2 ✓
USM ✓
Ames

Epiphyte on fallen log in open roadbank. Outer bracts light yellowish green (involucral). Inner bracts deep magenta covered with thick mucilagenous layer. Buds white.

Alt. 1000 m.

5749. Manettia hispida Poepp.
det. P. Mateszitis 1982.

F ✓
USM ✓ (4)
TOL
GH

Vine in open thickets. Pedicel calyx + ovary light green. Corolla light red.

5750. Corytoplectus speciosus (Poepp.) Wiehler Gesneriaceae.
det. H. Wiehler 1981.

(4)
Iquitos Peru ✓

USM.
GH
Gentry
K ✓

Herb in wet forest. Lvs. dark velvety blackish green above, deep purple beneath. Bracts dull pink apically, creamy white basally. Pedicel cream, calyx light red. Corolla pale yellow with silvery hairs.

5751. Justicia pilosa (Nees) Lindau Acanth.
(1) det. D. Wasshausen 1976
US Herb in wet forest. Bracts + calyx light green. Corolla tube white, lower lip pale lavender with magenta spots. Anthers deep magenta

5752. Pariana
US (1) Herb in wet forest. Bracts dark red purple. Glumes light green.

5753. ~~Heisteria~~ acuminata (H. + B.) Engl.
F J (3) det. H. Sleumer 1980.
USM J Treelet 4 m. in wet forest.
GH Calyx in fruit bright red. Fr. green turning dark purple. Infested with elongate galls.

5754. Philodendron CF. EFFUSILOBUM
(2) Climbing epiphyte on tree trunk in wet forest. Spathe light yellowish green, red within
Ivic Selby
USM
GH
SEL #62-76-5

#5754 P. LECHLERIANUM SCHOTT
Spadix cream. DET. T. CROAT 1978

5755. Costus guanaiensis Rusby var.
F (4) guanaiensis det P.J.M. Maas '76
USM
U
GH
Herb 4 m. tall at forest margin on steep slope. Lf. sheaths and lvs. with golden brown pubescence. Bracts red basally, appendages green. Ovary white. Calyx red. Corolla creamy white at base, pink at middle, cream apically. Labellum deep pink with central deep yellow stripe. Stamen dark red.

5756. Sanchezia peruviana (Wees) Rusby
F det. D. Wasshausen 1976.
USM (4)
TH
US
Herb 2 m. tall in open roadside thicket. Bracts dark red, yellow within. Calyx yellow, lobes pink Corolla light yellow.

5756A. Anthurium clavigerum Poepp.
(Z) Climbing epiphyte. Sterile
live only-Selby
Selby

[= 5722]

5756 B. Gasteranthus wendlandianus (Hanst.) Wiehl. Gesneriad.
1 live only - Silly
Herb with pleated leaves.

Boquerón Gorge. Alt. 400 m.

5754. Brunfelsia grandiflora subsp. Schultesii Plowman
F ✓ (10)
USDA ✓
US
GH
BH
COL
S

fotos Shrub 1.5 m. tall in forest margin on steep moist hillside. Lvs. dull olive green above, pale green beneath, dull, very smooth. Pedicel light green. Calyx light yellowish green. Corolla lobe white basally, pale violet toward apex. Limb pale violet beneath, violet above with white eye at opening, fading pure white with age. Fruits light green.

Peru: Depto. Loreto. Prov. Coronel Portillo. Between Boquerón and Aguaytía. Alt. 390 m.

Clidemia dentata D. Don

5758. ~~Miconia~~ Melast.

det Wurdack 1976

USM (3)
US
GH

Shrub 2.5 m. tall in wet forest. Ovary + calyx green. Corolla + filaments white. FR. dull blue purple at maturity

5759. Leandra secunda Don ex Cogn. Melast.

det Wurdack 1976

F
USM (4)
GH
UC

Shrub 1 m. tall in wet forest near forest margin. Ovary + calyx pale green. Corolla + filaments white? Immature fruit pale green.

Maieta poeppigii Mart. ex Cogn.

5760. ~~Miconia~~

det T.J. Wurdack '76

F
USM
US
GH

Shrub 15 m. tall in wet forest. Lvs. dark green above, lighter green beneath with reddish nerves. Frs. yellow orange to orange, finely red-purple at maturity.

Gk 5761. Carpotroche longifolia (Poeppig) Benthan
(1) ~~Mayna~~ det. Sleumer 1980.

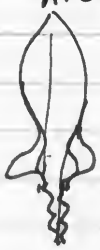
Unbranched treelet 3 m. tall in low wet
Seed-Warmen forest. FRs. cauliflorous ~~on~~
1 m. from ground, white.

Bentan 5762. Parieno
Gk (3)
US 1 ine
U Herb in wet forest. Sterile.

Bentan 5763. Gramin.
GH (2)
US 1 ine Herb in wet forest.

~~5761. Parieno~~
(1)
1 ine ~~Seslin-Tropical herb in wet forest.~~
FR.: spherical, green.

5763-A Philodendron ernestii Engl.
1 ine (1) Climbing epiphyte.
GH SEL #62-76-5
det. T. Croat 1985.



Peru: Dept. Loreto. Prov. Coronel Portillo. Between La Divisoria and Boqueron. Alt. 840 m. 27 MAR 1976.

5764. Bomarea

seed (2)

USM / Wis GH

Suberect herb in wet forest. Fruit spherical, green.

5765. Centropogon ~~aggregatus~~ macrophyllus

(1) det. B. Stein 1985. Label

Unbranched Herb 1.5 m. tall in wet forest. Lvs. very dark green, dull above, pale glaucous green beneath. Bracts pedicels + calyx light green. Corolla light magenta pink.

seed BANTA GH

det. K. Borringer 1985.

5766. Schoenobiblus ~~daphnoides Mart. + Zucc.~~ peruvianus Standl.

F (1) Unbranched subshrub 1 m. tall in wet forest. det D. Simpson 1976.

5767. Dieffenbachia

(2)

GH 3 labels USM

Large herb 2 m. tall in wet forest. Milky latex, strong skunk odor. Spathe green to yellowish green.

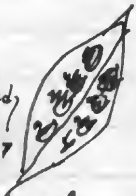
5768. Didymochlaena truncatula (Swartz) J. Sm. det Kew 1981. fern

K
F
USM
GH

(3) 6 labels

Acaulescent fern in wet forest.

5768-A. Heliconia variegata Loes. → H. zebrina Plowman, Kress + Kennedy
det. T. Plowman 1978



(2) live

Banta
Warmer
Kress
F
NYBG
PTBG
Kew
D. Sucre Fernandez
USM

Herb 1.5 m. tall in wet forest. Lvs. patterned, light green with dark green patches along costa, red purple beneath.

5768-B. Peperomia

(live)

Herb in wet forest.

Peru: Dept. Huánuco. Prov. Leoncio Prado. West of Tingo Maria Hills above Rio Monzón Jacintillo. Alt. 800m. 28 MAR 76.

5769. Anthurium polydactylum Madison
GH (1) det. M. Madison 1979.
HOLOTYPE
2 labels Climbing epiphyte in wet
live: forest. Peduncle erect. Spathe cream
Selby, Benta Wairea 1981. spiralled, ~~Fetus~~ pendulous. Spadix erect, then arching over, deep violet. SEL 62-76-1

5770. Strychnos
(1)
F Shrub 3 m. tall in wet secondary forest. Fruit spherical, red.

5771. Selaginella
USM (2)
GH Herb in wet forest.

5772 Anthurium oxycarpum Poepp. Arac.
(2) det. T. Croat 1986.
live F GH ~~Plants~~ Trailing herb on rocks
Wairea Brita Rhizome covered with roots. Spathe light green perpendicular to spike. Spadix

27 MAR 76

pale bluish-green. Fruiting spadix dark bluish-green throughout. Fruits in tetrahedral pyramids.
(= 5708)

Peru: Dept. Huanuco. Prov. Leoncio Prado. Tingo Maria. Jardin de Univ. Nac. Agraria de la Selva. 670 m.

K
A-JP 5773. Brunfelsia grandiflora D. Don
TM J (5) ssp. grandiflora
F "Chiric sanango"
USM J Shrub or small tree to 4 m.
Seed tall cult. in gardens.
Calyx yellowish. Corolla violet with
white age, fading pure white

Peru: Dept. Huanuco. Prov. Leoncio Prado.
Rio Pucayacu, Puente Pucayacu.
Alt. 570 m. 30 MAR 76.

5773A. Costus ~~prob. sp. nov. aff~~ C. productus
(6) VAR. PRODUCTUS (MAAS 1995) Gleason ex Maas
F J A
USM J
TH
U
DUKE
GH
Herb to 1 m. tall in open secondary forest along river. Lvs. pale green above pale green beneath. Bracts white basally bright red apically where exposed. Ovary white, reddish at apex. Calyx white, lobes red-purple. Corolla yellow.
det P.J.M. Maas 76.

5774. Aphelandra jacobinioides Lindau Acanth.
det D. Wasshausen 1976
F J (4) A
USM J
GH
US
Herb .8 m. tall in wet secondary forest. Bracts ~~red~~ rachis + calyx green. Corolla bright yellow throughout.

5775. Costus aff. guanaiensis
U (1) Herb 1.5 m. tall in wet secondary forest, 2 lvs. dark green pubescent unicate above, dark red-purple beneath.

Bracts red basally, apical exposed part green.

Peru: Dept. San Martín. Prov. Mariscal Caceres.
Near Yanahanca between
Azpuzana ~~Shapaja~~ & Santa Cruz. Forest
on steep hillside above Rio
Huallaga. Alt. 530 m. 30 MAR 76.

5776. Philodendron deltoideum Poepp. det Croat 1984
~~fritsii Bunting~~
(3) Climbing epiphyte in
F fwe wet forest. Lvs. shiny green
USM Selby above, paler less shiny beneath.
GH Young Spathe light green.
~~det. M. Madison 1977.~~ First Coll. of this
SEL # 85-76-4. ~~Species in the wild!~~

US-2
GH 5777. Psriana
USM (1) Herb in wet forest. Culms
F fwe below + bracts red-purple.
Bract Tsalent. Glumes yellow green Stamen
yellow.

5778. Piper LONGIFOLIUM R. & P.
F (1) - Shrub 2 m. tall in wet forest.
Spathe green.

det-L. McDade 1987.

GH US F USM (A)

5779. Aphelandra maculata (Tafalla ex Nees) Voss (4) Acanth.

foto

Herb in wet forest. Lvs dark green above, with velvety-sheen and pale green markings between major nerves. Bracts light green with pale brown margin. Fls. yellow. lvs. pale purple beneath.

5780. Clidemia heterophylla (Desr.) Gleason Melast. (2)

USM US

Shrub 2.5 m. tall in wet hillside forest. Myrmecophyte. Lvs. dark shiny green above, pale green beneath. Ovary & calyx dark red. det Wurdack 76.

5781A. Philodendron Araceae

Barata was Selby? only (1)

Vine on forest floor. Lvs. very dark shiny green, coriaceous.

Peru: Dept. San Martín. Prov. Mariscal Caceres.
Puente Palo Blanco, above Rio Tocache.
31 MAR 76. Alt. 580 m.

5781. Heliconia velutina Anderss.
GH (2) det. L. Andersson 1982
USM (A)
F Herb 1.5 m. in hillside forest. Infl. erect. Peduncle brownish green. Rachis light green. Bracts red with yellow band at base. Pedicel + perianth light green.

K 5782. Heliconia schumanniana Loes.
GH (2) det. L. Andersson 1983.
USM Herb 2 m. tall. Lvs dark green above, pruinose beneath. Peduncle + rachis green. Bracts deep yellow in basal 2/3, deep red apically. Pedicel deep yellow, ovary white in basal 2/3, deep ~~green~~ blue-black in apical 1/3. Perianth deep yellow.

5783. Erythroxylum mucronatum Benth.
(4)
USM Shrub 3 m. tall in hillside
F forest. Bark reddish-brown. Stipules
US reddish brown. Lvs. dark shiny green
GH fotos. above; shiny pale green beneath, yellowish along costa.

5783A. Heliconia

Seed only — Herb 2 m. tall. Infl. erect, spiraled, bracts & rachis dark red.

5784. Renealmia thyrsoidea (R.+P.) P.+E.
(3) det P.J.M. Maas 1977.

USM J
U
GH — Herb 2 m. tall in hillside 2° forest. Infl. basal. Basal bracts cream, upper peduncle bracts pale green, infl. bracts deep rose pink. Pedicel white. Ovary + calyx deep pink. Corolla + labellum bright yellow.

(R.+P.) Griseb. entity

5785. Symbolanthus calycinus Gentianac
(5) det P.J.M. MAAS 1978 (+ E.C.H. van Heusden 1983)

F J
USM J
K
GH
US — Shrub 2.5 m. tall in hilltop secondary forest. Twigs yellowish green. Lvs. dark green above, pale green beneath. Calyx light green. Corolla tube red. Limb deep carmine to magenta, upper surface with ~~deep~~ violet at center lined with white veins.

foto.

GH J 5786. Rubiac
F J (3)
USM — Shrub 1.5 m. tall in forest. Lvs. dark shiny green above, very pale whitish beneath. Rachis purple-black. Fls. cream.

FLS. Dist.

5787. Psychotria compta Standl.
F (3) det. D. Simpson 1977.
USM seed Shrub 1.5 m. tall. Fruits
GH deep blue

5788. Solanum
(3)
F seed Scandent shrub in open thicket
USM Lvs. dark dull green above, whitish
GH green beneath. Frs. purple-
black at maturity.

5789. Heliconia chartacea Lane ex Barreiras
GH (3) det. L. Andersson 1984
F 8 labels Herb 3 m. tall in secondary
Infl. pendulous forest. Peduncle + rachis red.
Bracts red abaxially with pale green
spirochaete, margins, proximally. Pedicel +
seed ovary white. Perianth white, head
½, pale green above. Mature frs.
dark blue.

5790. Trichipteris pilosissima (Baker) Barr. fern.
3 (4 labels) Tree fern, 3 m. tall in cutover forest. Major pinnae 10.
det. R. Tryon 1/86.
F USM GH

Peru: Dept San Martin. Prov. Mar. Caceres. Tocache. Alt. 480 m.

5791. Costus guanaiensis Rusby ?
(2)
GH U Herb 1.5 m. tall cult. in garden beside Main Plaza. Lvs. very dark green above, dark red purple beneath. Infl. terminal. Bracts and appendages light green where exposed, red within on both surfaces. No fls. or frs.
Planted by José Schunke Vig. Brought from Quebrada Cachiyaco de Lopunga S. of Tocache. (Mina de Sal)

5790A. Voyria Gentian.
(1)
GH (A) Saprophytic herb in moist
foto. humus. Stem white. Ovary white. Corolla limb pale blue-violet.

5790B. Burman.?
U (1) Saprophytic herb Fls. cream. = moist humus.

Peru: Dept. San Martin. Prov. Mariscal Caceres. Right bank of Rio Mishollo. Alt. 510-540 m. 1 Apr 76.

K ECON US(T) F US MBM

5792. *Erythroxylum coca* Lam. (7)

N.V. "Coca"

Shrub to 2 m. tall in medium sized cocal in jungle clearing near confluence of Rio Mishollo with Rio Huallaga. Plants 4-5 yrs. old. Bark lt. grey-brown. Branches weak, arching over, reddish brown. Old stipules (rementa) pale brown. Lvs. medium yellowish green above, somewhat shiny; pale glaucous green beneath, lines faint to rather marked, areolae concolorous. Pedicel & calyx lt. green, petals cream. Fruits light olive green turning bright red at maturity. Long styled.

live → 6317

fotos

K F US(T) ECON US NCU

5793. *Erythroxylum coca* Lam. (6)

N.V. "Coca"

Shrub 1.5 m. tall cult. in cocal. Lvs. med. yellowish-green above, pale glaucous green

beneath. Petals creamy yellow.
Short style.

5794. Erythroxylum coca Lam.
(7) n. v. coca

F
USM
ECON
US
IND
GH

Shrub 1.5 m. tall cult. in open coca. Leafy plant. Lvs. medium yellowish green above, shiny; pale glaucous green beneath, areolae distinct, veins distinct. Petals cream. Fruits red at maturity.
Short styled. Lvs. thick.

5795. Erythroxylum coca Lam.
US
ECON (5) n. v. "coca"
F
USM
seed-dupl

Shrub 2 m. tall with few chlorotic leaves at tips of branches. Lvs. yellowish green above, pale glaucous green beneath. Frs. yellowish green turning orange then bright red. Fls. creamy yellow

Short styled.

5796. Erythroxylum macrophyllum Cav.
(8) n.v. Sacha Coca

F ✓
USM ✓
TM
ECON
US
K
NCU

Young treelet 3 m. tall
Sprouting from cut trunk 6 cm in diameter. Bark dark rusty-red brown. Wood blond.
fotos
Lvs. dark green above, faintly shiny; pale glaucous green beneath, no lines; areolae sometimes distinct as darker green area.
costa whitish; to grey-green
Branchls reddish brown. Twigs yellow-green. Stipules reddish brown caducous.

5797. Erythroxylum macrophyllum Cav.
(5) n.v. Sacha coca

F ✓
USM ✓
GH
US
WS

Tree 10 m. tall with slender trunk 6 m. tall, 6 cm. in diameter. Crown open spreading.
fotos
Open primary forest. Bark
Branches grey; with scattered fornicaria.
Lvs. very dark green above, semi-shiny, costa thin, yellowish. beneath dull pale green

galls.

WOOD:
Aw
Uw

with fine dark veinlets.

5798. Erythroxylum coca Lam. (2)
n.v. "coca"

ECON F

Shrub 1 m. tall in open secondary forest along stream, in shade near Rio Misholla. Bark greyish brown. Lvs. dark green above, dull, somewhat shiny at areolar region above; lvs. pale green dull beneath, lines ± distinct, areolae paler green.

5799. Erythroxylum ulei O. E. Schulz (4)
n.v. chuncha coca

F
USDA
GH
US

Shrub 1.5 m tall in open secondary forest along stream near right bank of Rio Misholla. Bark greyish brown. Lvs. dark green above, slightly shiny; pale glaucous (bluish) green beneath, exareolate, elliptic. Buds yellow.

5799A Lichen on lvs. of 5799. det. M. Sherwood 1977.
Strigula elegans (Fée) Müll. Arg.

1 Apr 76

Macrocnemium Mart.

5800. Erythroxylum ~~sulcatum~~ Benth.

(8) n.v. "seca coca"

F J
USM J
TM = HTIN
GH
ECON
US
COL
K
NCU
U

Unbranched shrub 2.5 m. tall flat open area in cut-over primary forest along right bank of Rio Mishollo. Trunk greyish brown, transversely cracked. Lvs. very large, very dark glossy green above with light green midrib; beneath pale green with the nerves darker in areolar region. no lines & blade concolorous. Venulet. fine darker in areolae regio. Stipules ~~etc~~ long, striated, curling spirally, early caducous. Infl. axillary in upper leaf axils. Bracts rusty brown. Calyx light grn throughout, drawn together at sinus into a decurrent rib. which descends pedicel. Fruit bright red.

VOUCHER SPECIMEN

5800-A E. comosum O. E. Schulz
no specim. Also growing here.

5801. Pariana.

Bamb (1)
US

Herb in wet forest. Culm + all peduncle pale pink. Bracts pinkish green. Petiole pink. Lvs. bright green above, pale green or pinkish beneath. Glumes lt. green basally, pink apically; Anthers yellow.

5802. Pariana

Bamb (4)
Fiji
USVI
GH

Herb in secondary forest along trail in partial sun. Cataphylls, stem, petiole + bracts red-purple. Anthers yellow.

5802A.
no specs "ungurabe"
Cult. palm.

Peru: Dept San Martin. Prov. Mariscal Caceres. Right bank of Rio Huallaga, opposite to coche. 2 Apr 46. 600 m. Rio de la Plata.

5803. Erythroxylum macrophyllum Cav.

(10)

F ✓
USM ✓
TM
ECON
GH
US
K
Leaf mon.
NCU
NY
Sto

Tree 8 m. tall with trunk 15 cm. DBH in forest on steep slopes, with drooping branches. Branches grayish brown. Stipules light green becoming reddish brown. (rust). Petiole light green becoming thicker, brown. Lvs. very dark green above, shiny with light green caste; lvs. beneath pale green with occasionally slightly paler areolae, veinlets darker green, finely distinct. Infl. in dense axillary glomerules bracts rust (reddish brown). Calyx persistent, greenish to brown. Immat. fruits shiny, light green with apical knobs.

GH ✓
F ✓
USM ✓
TM
NCU

5804. Erythroxylum macrophyllum Cav.

(6)

Lvs. for analysis

Shrubs 4 m. tall. Branches lt. brown. Twigs light-green. Lvs. dark green subshiny above, pale green beneath, areolae concolorous to deeper yellowish green.

Peru: Dept. San Martin. Prov.
Mariscal Caceres. Tocache.
Miramar, north of Tocache along
left bank of Rio Huallaga. Alt.
500 m. 2 Apr 76.

5805. Brunfelsia grandiflora D. Don
N.V. "Chiri sanango"
USM (2)
GH
Low shrub 1 m. tall at edge of
secondary thicket along pasture.
Full sun. Lvs. rubbery, dark to medium
green above, light yellow green beneath.
Calyx + pedicel light yellow-green.
Corolla tube pale lavender. Limb pale
lavender abaxially, violet adaxially with
white spot on upper half of throat, fading
to white.

5806. Brunfelsia grandiflora D. Don
N.V. "Chiri sanango"
(4)
F
USM
GH
K
Shrub 2.5 m. tall in secondary
thicket. Said to be left from recently
cut primary riverine forest. Branches
weak, arching over. Lvs. dark green
above, pale green beneath. Calyx pale
green. Corolla tube pale violet, limb
violet with white eye fading to
pure white. growing in sun.

5807. Brunfelsia grandiflora D. Don
(7) n.v. "chiric sanango"
(A)

F
USM
Blt
K
NY
G
Cord

Shrub 3 m. tall in spreading arching branches. Bark cracked, yellowish brown, flaking off. Growing in ~~secon~~ cut-over secondary forest along river in small corral. Several young plants (seedlings) growing beneath in cleared area. Calyx green green. Corolla tube pale violet, limb violet with white eye, fading pure white.

5808. Erythroxylum ulei O.E. Schulz
(7) n.v. "chuncha coca"
(A)

F
USM
ECON
GH
US
S
COL

Shrub 4 m. tall growing in secondary forest along river bank of Rio Huallaga. Trunks erect, branches horizontal, leaves held in horizontal plane. Bark greyish brown. Branchlets reddish brown. Lvs. dark green above dotted with lichen, pale glaucous green beneath with yellowish costa. Calyx light green. Buds pale yellow.

5809 Erythroxylum ulei O.E. Schulz
(87)
n.v. "Chuncha coca"
(A) Shrub 2 m. tall with
F √ erect + spreading branches
USM growing in secondary forest
TM on bank of Rio Huallaga. LVS.
Glt dark green above, pale glaucous
US green beneath with yellow
K green costa. FRuits dark wine
MM red, fleshy-mucilaginous.
G

5810. Unonopsis mathewsii (Benth.) Aunon.
(6) R.E. Fries det. D.R. Simpson 1977.
F √ (A) Tree 5 m. tall at edge of
USM √ photos secondary forest on bank of Rio
TM Huallaga. Fls. cream. FRuits
U green then orange then bright
Glt red at maturity. Infested with
US ants.
live = Waimea 1981!
(A) → U

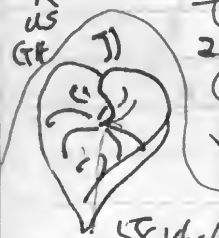
5811. Eucharis
(2) Bulbiferous
(A) Herb along trail in cut over
live primary forest near river. Fls.
USM √ pure white
Glt

Peru: Dept. San Martin.
Prov. Mariscal Caceres. Santa Cruz.
Alt. 440 m. between Tucayaco
and El Progreso 3 Apr 76.
Forest along Rio Huallaga.

5812. Strychnos tarapotensis Sprague & Sandw.
F (4) det B.A. Krukoff 1976.
USM Shrub 2.5 m. tall in margin
NY of lowland forest along trail.
GH Fruits bright red.
live: Waimea 1981

5813. Chyrtochloa variana Swallen
det Kew 1977.
F (3)
USM (A) Densely cespitose herb growing
TM live at edge of trail in lowland forest.
GH Culms dark red-purple. Lvs. stiff
US green.
K

5814 Acanthac.
F (6) Sanchezia rhodochroa Leonard & Smith
USM Large shrub 4 m. tall along
TM trail in lowland secondary forest
K along river. Bracts light green.
US Calyx dark red. Corolla tube
GH red. anthers bright yellow.
det. D. Wasshausen 76.



5814-A. Anthurium CF. REGALE LINDEN
SEL (2) ter. herb 1.5 m. tall. Lvs. dark
live velvety green with bright green nerves.
GH

→ T. PLOWMAN COLL.

PERU: Dept. Huanuco. Prov. Leoncio Prado. Tingo Maria. Hills above airport, left bank of Rio Huallaga. Alt. 700-800 m. 5 Apr 76.

GH US MICH US 5815. (4) (A) Rubiaceae.

Woody liana 5 m. tall in secondary forest along trail. Fruits yellowish green.

US GH NY 5816. (3) Aegiphila cordata var. villosissima (Moldenke) Moldenke

Shrub with scandent branches 2.5 m. tall in rocky woods. Calyx dull yellowish green. FRS. orange. det Moldenke 1976.

F US GH 5817. (3) Psychotria tenuicaulis Krause

det D. Simpson 1976. ! C.W. HAMILTON 1992

Shrub 1.5 m. tall in rocky secondary woods. Leaf blade undulate. Frs. dark red, fleshy.

USM GH US 5818. (3) (A) Justicia matthewsii Rusby Acanth.

det. D. Wasshausen 1976

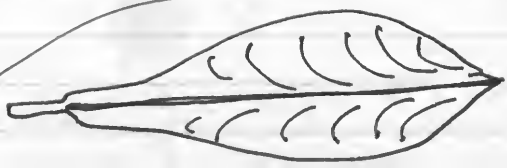
Herb .5 m. tall in forest margin along trail. Bracts & calyx green. Corolla tube white, lobes pale violet adaxially

5819. Justicia appendiculata Vahl Acanth.
(A) det. D. Wasshausen 1976.

USM (3) Herb 2 m. tall in secondary
GH forest margin. Stem + rachis
US dull purple-brown. Bracts golden yellow-brown. Calyx yellow-grn. Corolla tube + pale reddish orange, greenish toward base.

5820. Calathea
(4)

(A) Herb growing on craggy
live plants rocks on steep slope. Stem +
foto lf. sheath purple. Pulvinus
USM light grn. Lvs. dark green
GH above with slight sheen-pale
F glaucous green to completely
U purple on same plant. Peduncle light yellowish green, purple towards base. Bracts light green. Calyx + corolla white. Stamen nibbles pale violet. Capsule cream.



5821. Capsicum? COCCINEUM (RUSBY) HUNZ.
DET. HUNZIKER 1994

USM (4) (A) →K Subshrub 1.5 m. tall along
ECON trail in margin of secondary
F forest. Pedicels erect, fls. nodding, corolla
Reading cream. FRS. spherical, red, pungent.
(Petals campanulate. Anthers brown)

5822. Capsicum chinense Jacq.
(2) det. B. Pickersgill 1976.
ECON Cult. herb 1.5 m. tall in house-
Reading yard. Pedicel pendulous; corolla
cream; anthers bluish. FRS.
light orange. Petals suberect.

5823. Capsicum frutescens L.
Reading (1) det. B. Pickersgill 1976.
(A) Cult. Herb in house yard, 1 m. tall.
Pedicel erect, fls. nodding. Corolla
greenish cream, petals recurved.
(A) →K Anthers bluish. Fruits erect
at maturity, bright red.

5823A. Arthurium reflexinervium Croat
(2) det. T. Croat 1986.
voucher Herb growing on craggy rocks.
live Selby Lvs. light green, bullate.
GH

5824. Mendoncia

USM (3)
GH
US

Herb. vine in secondary thickets. Calyx green. Corolla tube + lobes cream with dark red purple stripes within tube.

5825. Brunfelsia grandiflora D. Don
subsp. schultesii Plowman

(6)
USM (A)
F

n.v. chiric sanango

Calt. shrub 2.8 m. tall in house yard near airport. Lvs. small, with decending lamina, dark subshiny green above, light yellowgreen beneath. Fls. many, Calyx Ht. yellowish green. Corolla tube pale violet. Limb violet fading to pure white, "eye" white above, deeper blue violet on lower 2/3. Frs. dark green, dotted with lenticels

A → K

5825A. Carica

Seed AOM
Wauwa

Wild fruits collected for eating by natives. Seed only.

Peru: Dept. Huanuco. Prov. Leoncio Prado. Shapajilla, ~~between~~ between Tingo Maria and Desvio Pucallpa. Alt. ca. 700 m. 6 Apr 76.

5826. Erythroxylum coca Lam.
(3) n.v. "coca"

TM USM ECON ✓

Cult. Shrub ~~to~~ 1 m. tall in weedy coca along road. Poorly tended plantation, lacking fertilizer. Open hillside. Lvs. thin, medium green above, pale yellowish green beneath, lines distinct, areolae more glaucous green. FR. red, 10 x 6 mm ovoid-ellipsoid. Fls. cream.

/

5826A. Lichens

FH Parmelia cristifera Tayl.
Chiodecton sanguineum (Sw.) Vain.
Usnea sp.
det. Dey Pl 1978.

Peru: Dept. Huanuco. Prov. Leoncio Prado. Pumahuasi, on road from Tingo Maria towards Pucallpa. Alt. ~~[illegible]~~ 850-900 m. 6 Apr 76.

9 yr. old Experimental plots of Dug. Rodolfo Cullenter, for Dr of ~~Lucia~~ Luiz del Valle.

5827. Erythroxylum coca Lam.
(8) (A)
n.v. "molle coca"

Cult. Shrub 1 m. tall much densely branched, squat, with lichen covered branches. Branches greyish brown. Twigs reddish brown, with well developed ramenta, reddish brown. Lvs. crowded at branchtips, dark green shiny above, midrib yellowish green; Lvs. beneath pale glaucous to yellowish green, lines more or less well marked, areolae slightly paler green.

Fls. few, creamy white.

Frs. red at maturity, 8 x 4.5 mm.

Only one plant remaining.

(A) ?K

endys
TM
MSC J
US
ECON
K
F
NCU
NY

5828. Erythroxylum novogranatense (Morris) Hieron.
(6) "Trujillo coca" var. truxillense
(A) Cult. shrub to 1 m. tall, grown from Trujillo seed.

FM
USM
ECON
F
K
NY

Plants very poor with thin weak branches, often short and twiggy. Lvs. reduced in size, mostly chlorotic, dull medium green to light yellow-green above, pale lighter midrib; lvs. beneath pale glaucous to yellowish glaucous green with more or less distinct lines; areolae more yellowish; lvs. thin membranaceous. No rements produced.

Fls. ~~yel~~ creamy yellow. No fruits.

Almost all Trujillo coca completely dead + removed.

(A) → K

5829. Struthanthus pyrifolius (HBK.) D. Don
(2) Parasite growing on Trujillo coca (5828). Lvs. shiny, light green. Stem + rachis light brown. Fruits green. Vt on E. coca 5831.

ECON
USM

5839 Erythroxylum coca Lam.
(F) nv. "Cuzco Coca"

(A)
TM
US
ECON
F
K
NCU
MEXU

Omit { grows twice as tall when planted 1 m. apart vs. 0.5 m. apart }

Shrub 1-2 m. tall.
Branches variable- ~~mostly~~ slender great branches or low spreading, but usually open, spread;
Bark pale grey to reddish brown. New twigs green becoming reddish brown. Lvs. dark green above, shiny, to rather dull, costa light yellowish green; lvs. beneath pale glaucous green, sometimes yellowish with yellow-green costa; linea raised slightly or not; areolae concolorous or lighter green. Ramenta well developed, ~~sp~~ stipules pale brown. Lvs. fairly thick-membranaceous.
Fls. few, creamy white to yellow; Frs. red at maturity. 6-8 x 5-6 mm, ovoid.

(A) K

5831. Erythroxylum coca Lam.
(4) h.v. "Coca de Tingo Maria"

TH
USM
ECON
F
K
NY
WAG

Cult. Shrubs 1-2 m. tall. Grows twice as tall when planted 1 m. apart than 0.5 m.

Branching & leaves same as 5830, virtually indistinguishable in habit & leaf.

Leaves dark rather shiny green above with yellowish mid rib above, pale glaucous green beneath, mid rib yellowish, linea ± distinct areolae paler.

Fls. creamy yellow. Fr. red, 7-10 × 5-6 mm, ovoid.

5832. Rollinia
"anona"
(3)
USM
ECON
U

Cult. Tree 6 m. tall. Fruits on cauliflorous on sturdier branches, 15 cm. diameter, covered with many blunt points, yellow at maturity. Flesh white.

VOUCHER
SPECIMEN

5833. Erythroxylum coca Lam.
(9) n.v. "coca" del monte"

JM
USM
ECON
F
K
NCU
NY
G
RB

Treelet 4 m. tall in secondary woods, remnant of old cocal, at least 10 yrs. old. Growing in semi-shade, rarely pioched. Trunk 3 cm. diameter, bark fairly smooth, light grayish brown.

Branching sparse, open, slender. Branches light brown.

Lvs. very dark green above, somewhat shiny, costa yellowish green, major nerves distinct. Lvs. beneath pale glaucous to somewhat yellowish green. Lineae more or less distinct, secondary lineae also distinguishable. Areolae concolorous to paler green. Young leaves yellow-green.

Fls. near base of branchlets on wood 2 flushes old, creamy yellow. FRS. ovoid, 8×6 mm, pale dull yellow.

(A) 7K

5834. Erythroxylum coca Lam.
(3) n.v. "coca del monte"

USM
ECou
US

Shrub 2 m. tall in open secondary woods. Remnant of old coca. Brs. Branches long-spindly. Lvs. med. green above, dull, beneath pale glaucous to yellowish green, veins lighter; areolae concolorous. Fr. fusiform 11 x 4 cm, golden yellow.

PERU: Dept. Huanuco. Prov. Leoncio Prado, Tingo Maria, North. Naranjillo.
1 lt. 610 m. 6 Apr 76.
Coral de Sr. Machado.

5835. Erythroxylum coca Lam.
(8)
n. v. "coca"

TM (Bantor) USM ECON VT F K RB NY

Shrub 1.5 m. tall in well-cared for, fertilized coral on ~~field~~ flat hilltop. Planted 25 cm apart but mostly more widely spaced due to attrition of weaker plants. Plants well branched, very leafy; about 3 cm. in diameter at base. Bark greyish brown, branches greyish brown. Twigs reddish brown, stipules light brown. Leaves very dark green above, shiny, nerves prominulous. Costa light green; lvs. beneath pale glaucous green, lines distinct lighter, areolae a little pale. Fls. long styled. Calyx light green, petals creamy yellow, Corolla white. Ovary light green. Filaments white.

5835A. Elovia sp. Sent to Becker 12 NOV 79. Label → F

Fruits ovoid-ellipsoid, 8-11 x 6-7 mm, red at maturity.
~~Long petiolate~~

5836. Erythroxylum coca
(5) n.v. "coca"
USDA ECON F K MO US
Same data as 5835. Short styled plant.

5837. Erythroxylum ulei O. E. Schulz
(2)
seed Chuck USDA ECON
Cult. shrub 1 m. tall in coral. Experimental planting. Branches spreading. Lvs. ~~dark~~ medium green above, shiny, with lt. green midrib; lvs. beneath dull, pale green. No lineae or areolae. Fruits dark wine red, ovoid-oblique, 9-12 mm x 5-7 mm. Fls. yellowish cream.
⊕ 7 K

5839. Erythroxylum coca Lam.
(4) N.V. "Coca"

USDA ECON F NCU

Cult. shrub 1.5 m. tall. Bark greyish brown. Twigs reddish brown. Lvs. dark green, 1° firm membr, sub shiny above; pale glaucous green beneath, linear distinct, areolar paler green. Fls. cream, petals greenish near apex, corona white, filaments white. Fruit yellow turning bright red, ovoid, 7-9 × 6-7 mm.
Short styled-plant.

5840. Erythroxylum coca Lam.
(4) N.V. "Coca"

USDA ECON F NCU MA

Cult. shrub 1 m. tall. Lvs. smallish, held suberect, thick membranaceous, dark shiny green above, pale glaucous green beneath, bilineate, areolate. Fls. creamy yellow, ~~short styl~~ long styled. Frs. short ovoid to subglobose, orange turning red, 6-8 × 5-6 mm.

5841. Erythroxylum coca Lam.
(3) n. v. "coca"
USM J
ECON
US
Shrub 1.5 m. tall. Lvs. shiny medium yellowish green above, pale yellowish glaucous green beneath, faintly bilineate, areolate, areolae lighter. FRS. lt. green, ovoid-ellipsoid 9-10 x 5-6 mm.

5842. Erythroxylum coca
ECON (1) n. v. "coca"
Seedlings sprouting at base of coca plants in shade. Unaffected by herbicides.

5843. Erythroxylum coca
(3) n. v. "coca"
USM ✓
ECON
US Fotos
Cult. shrub 1.5 m. tall. Badly damaged by ~~Fb~~ maluña larvae (Eloria cocae).

Peru: Dept. Huanuco. Prov. Leoncio Prado. Tingo Maria. Alt. 680 m.

5844. Brugmansia x insignis (B. Rodrigues) Lockwood
A-JP (4)
USM
F
K
Shrub 2 m. tall cult. at Hotel Turistas on bank of Rio Huallaga. ~~Fls~~ Corolla tube cream towards base,

deep pink toward apex + at lobes.

Peru: Dept. Huanuco. Prov. Leoncio Prado. Castillo ~~Alto~~, West of Tingo Maria. Alt. 800 m. 7 Apr 76.

BH 5845. *Wettinia augusta* Poepp. & Endl.
USM (A) "n.v." "ponilla"
GH (P) Palm with trunk 6 m. tall, 8 cm DBH. Lvs. 3 m. long.
foto Infr. dark brown.
Seed Det. H. E. Moore 1976.
PS

(A) → K

5846. *Peperomia*
(1) Succulent herbs on moist rocks.
live Selby Stems & petiole deep pink. Lvs. dark
F green above, with lighter green between
major nerves, pale yellow-green
beneath. Spikes thick clavate
pale green.

5847. *Philodendron divaricatum* Krause
USM (1) det. T. Croat 1982.
GH Climbing epiphyte. Lvs. shiny
light green above, dull beneath.
Spathe yellowish green turning Creamy
yellow, pinkish within. Spadix pinkish

Cream in ♂ + sterile part; ♀ part pale yellow green.

5848. Fern
USM (2) Terrestrial fern in wet forest.
GH Cespitose.

5849. Asplenium radicans L.
USM (4) Terrestrial fern in wet forest.
GH Vegetatively reproducing by runners
F from costa. det. K. U. Krukoff 1976.
U

5850. Calathea dicephala

H (5)
(A)

live Banta Helen

Herb in moist forest on steep slope. Stem + prophylls purple. Petiole purplish basally, light green apically. Pulvinus light green. Lvs. strongly patterned above: Costa bright yellow-green. Bordering costa pale grey-green, center laterally dark dull green, margin pale grey-green with dark green stripes on nerves; deep red purple beneath. Pedunicle lt. green. Bracts light green turning dark purple brown, Fls. white. coarse yellow-green.

USM U GH F-2 US

(A) K

5851. Piper augustum Rudge
(3) det. W. Burger 1981.
seed. Shrub 2.5 m. tall in forest.
Barba Wainen HK Kress Selby Lvs. dark green above, ~~pale~~ light
USM J yellow green beneath. Young spike
F dark brown, erect. Fruiting spike
GH pendulous, 33 cm long, 2.5 cm
diameter, yellowish brown.
Peduncle dark purple.

5852. Piper tectoniifolium Kunth.
USM J (4) det. R. Callejas 1982.
GH Shrub 3 m. tall in forest.
F Spikes erect, green turning
U dark brown.

5853. Piper sp. aff. P. urostachyum
USM J (3) Shrub 1-1.5 m. tall. Lvs.
F very dark green above, rugose;
GH pale glaucous green beneath.
White hairs on stem. Spikes yellow
green.

5854. Mendoncia lindavii

GH (3)
USM ✓
US

Herbaceous vine in forest margin along trail. Hairs reddish brown. Calyx green. Corolla carmine red. Mature berry dark purple.

5855. Miconia stelligera Cogn.
det J.J. Wurdack 1976.

USM ✓ (3)
GH (A)
US Foto + bracts

Treelet 5 m. tall in forest margin. Twigs + petiole yellow-brown. Rachis pale green. Corolla + stamens white.

(A) ? K

Platycentrum clidemioides Hook.f.
det. J.J. Wurdack 1976.

USM 5856 (4)
GH
US
K

Shrub 3 m. tall on open bank along trail. Rachis dark red. FRS. pale blue.

US 5857. Clidemia sessiliflora (Naud.) Cogn.
USM ✓ (A)
K (A)
GH

Shrub 2 m. tall in forest. Calyx pale greenish white. Petals + stamens white. Cauliflorous.
det. J.J. Wurdack 76.

(A) ? K

USM ✓ 5858. Miconia bubalina (Don) Naud. det Wurdack 76
US (4)
GH
K

Shrub to 5 m. tall in secondary forest. Lvs. dark shiny green above,

dull ~~pale~~ grey beneath with rusty brown nerves. Stems + rachis rusty brown. Young fruits pale green.

5859. Cephaelis killipii Standl. Rubiac
USM J (3) det D. Simpson 1976.
F
Shrubs 2 m. tall in forest. Bracts pale green. Fruits blue-green.

5860. Anthurium clavigerum Poepp.
(2) det. M. Madison 1979.
(= 5756A) Climbing epiphyte, 6 m. tall.
USM J Lvs. palmately compound. ~~Lflets~~
GH Lflets. deeply loked, dark shiny green above, ~~pale~~ light yellow green beneath, nerves lighter yellow. Spike pendulous, brown. Spathe caied, dark brown.

5861. Psychotria viridis R. + P.
(3) n.v. "chacruna"
seed Banta Shrubs 2.5 m. tall in open
USM J secondary scrubs. Rachis light
EGON green. FRS. olive green turning orange. Dark wine red at maturity.
F
! C.W. HAMILTON 1989

5862. Erythroxylum coca Lam.
(4) N.V. "Coca"

USM ✓
ECON
F
NCU

Cult. shrub 1.5 m. tall on open hillside. Plants open spreading branches. Lvs. young, yellowish green above, barely shiny; pale glaucous green beneath, areolae lighter, bilineate. Young fruits green. Rows running vertically on slope, plants in furrows.

5863. Sanchezia ovata R. + P.
det D. Wasshausen 1976

USM ✓ (4)
K (1)
GH
US

Herb 3-4 m. tall on open thicket along road. Bracts + peduncle dark wine red; Calyx dull orange. Corolla golden yellow. Filaments & anthers golden yellow. Outer bracts sometimes green or tipped green.
(A) T K

5864.
(4) · Solanum rantonetii Carr. det. g. Vilcapoma. May 1976.

USM ✓
F
MO
GH

Scandent shrub in open roadside thicket. Calyx light yellow-green. Corolla light blue-violet or pure white.

Peru: Dept. Huanuco. Prov. Marañon
Leoncio Prado. Tingo Maria.
Jardin Botanico de la Univ.
Nac. Agraria de la Selva.
Alt. 670 m. 8 Apr 76.

→ cf. Mascagnia benthamiana (Griseb.) W. Anderson det WRA 1982

5865 (3) Tetrapteris sp. nov. aff. T. discolor
det. W.R. Anderson 1977

live: B. Gates
USM ✓
ECON
MICH

Mascagnia stannea (Griseb.) Nied. Malpighiac.
det. W.R.A. 1988!
calt. Vine. Lvs. dark shiny green above, very pale whitish green beneath. From Aguaytia.
det. W.R. Anderson 1976
(= 7630) calt. EI AI.
+ 11190

5866 Mascagnia anisopetala (Adr. Juss.) Gr.
" N.V. purgahuasca
live B. Gates (3)
USM
ECON
MICH
Calt. Vine. From Aguaytia
det. T. Plowman = 11207?
1985

5867 A. Solanum
To Specimen "Cocona"
Wilmer 1981!
Fruit bought in fruit stand in Tingo Maria.

5867 Calathea PERUVIANA KOERNICKE
(2)
DET. H. KENNEDY & R. FOSTER 1989
live Banta HK
Herb calt. in shady places.
MB A-SP F
Petiole & peduncle dark purple. Pulvinus dark dull red. Lvs. dark green above, shiny, with

~~L.~~ pale green grey pattern along costa and midway between costa + margin. Costa yellow-green. Dark red-purple or pale green beneath. Fertile bracts dark purple-brown with brownish pubescence. Comose bracts light green tinged purplish beneath. Calyx + corolla white. Staminodia violet.

5868. Calathea
(2)

live Banta USM ✓ fotos F-2

Herb. cult in Shade. Brought in from Ducayaco. Lf. sheaths + petiole dull olive green. Pulvinus dark brown, thick, soft pubescent. Lus. smooth above, pale greyish green with dark green nerves; soft pubescent beneath, paler green. Peduncle light green. Bracts dull brownish purple, dull green within. Calyx + Corolla tube white. Petals pale yellow. Staminodes deep yellow.

Peru: Dept. Huanuco. Prov. Leoncio Prado. Rio Monzón, right bank. Hills to the west of Cuesta de las Lechusas, Bella. Apr 11, 76. Alt. 700 - 850 m.

5869. Maregravia

USM (4)
GH
U
F

Climbing epiphyte in open hillside on tree trunk. Pedicel + fl. buds, light green.

5870 Trianaeopiper pedunculatum (C.DC.) Trel. det Burger 1981
(1)

live selby!

Herb 1 m. tall in forest. Spike erect, dark purplish brown; smooth. Lvs. very similar to 5870.

(F)

5871. Piper

USM (2)
GH seed Wainea

Herb 1 m. tall in forest. Spikes pendulous, yellowish green in fruit. Frs. long acuminate, protruding.

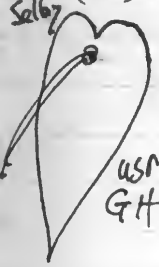
5872. Heliconia stricta Huber Musac.

(A) (3) det. L Andersson 1982. in forest.
Herb 2 m. tall. Infl. 1.5 m.
GH U above ground. Lvs. dark green above
USM

Smooth somewhat shiny;
medium green beneath, shiny, costa
brownish. Peduncle deep purple. Bracts
deep red-orange (lower bract only with pale yellow on keel.
Brief marginal cuff yellow-orange).
Bracteoles pale orange. Perianth white
in basal 2/3, green in upper 1/3.
Ovary white. Infl erect, distichous.
Fruits dark green becoming dark blue at maturity.

5873. Anthurium Area.

(like Selby (2))



Herb on rocky outcrop. Lvs.
coriaceous, shiny dark green above,
lt. yellowish green beneath.
USM Infl. [illegible] part.
GH SEL # 69-76 1/2 ? (or 5873A?)

5874. Heliconia

(2)

Herb 2.5 m. tall in forest. Lvs. dark
seed Kress / green above, dull, velvety; pale
USM grey-green beneath, shiny.
GH Peduncle erect, green. Rachis &
bracts dark red. Pedicels cream
yellow. FRS. dark blue at maturity.
Infl. erect, bracts spiralled.

(= 5783A)

5874A. Apeiba
(2) seed only
(2) dried
Fruit on ground.

5875.
USM (2)
GH
Terrestrial fern in moist crevice in rocky outcrop growing on ~~rock~~ clayey soil. Only one seen.

albivenis (Lindl. ex Veitch) Brummitt
5876. Fittonia ~~verschaffeltii~~ (Lem.) Coem.
USM (2)
GH
det E. Cerrate de Ferreyra '76
Terrestrial herb on forest floor. Lvs. dark green above with white veins; pale green beneath. Infl. bracts light green. Fls. cream white.

5877. Peperomia maculosa
(2)
live (=5974)
USM
GH
Herb on steep rock face. Lvs. thick coriaceous; dark green above with lighter green along costa + major nerves; lighter yellow green beneath. Sterile.

5878. Philodendron divaricatum Krause
(1)
det. T. Croat 1982.
live Selby
GH
Climbing herb on forest floor + on rock faces. Sterile.

5878A. Bromeliad

Tuberiflorae herb on rocks in forest. Sterile.
Selby

Peru: Dept. Huanuco. Prov. Leoncio Prado. Rio Monzón. Jacintillo, west of Tingo María. Alt. 700 m. 12 Apr. 76.

5879. Pithecellobium ~~latifolium var aff.~~ Longifolium (H. + B.) Standl. det C. Nielsen 1980. Mimosae.

USM (3) GH F

Small tree 5 m. tall in forest on steep slope. Fls. cauliflorous, from 1 m. above ground to 2.5 m. Rachis green. Calyx green. Filaments white.

det. V. Rudd '77. [ZYGIA ORIUNDA (MACBRIDE) L. RICO L. RICO 1977]

→ P. macrophyllum Spr. ex Benth. det C. Barbosa 1983.

5880. Maxua odorata Aubl.

USM (3) F Seed Wiemer GH → K (A)

Shrub 1.5 m. tall in forest on steep slope. Fruits light orange; white within. Seeds light brown.

Lauraceae

5881. (3) USM J. F MO

Shrub 2 m. tall in open woods on steep slope. Rachis green. Fls. dull yellowish

5882. Anthurium
(= 5899?)
(1)
Wid Selby
Epiphytic herb on tree stump. Lvs. coriaceous dark green above shiny; pale dull green beneath. Peduncle erect, lt. grn. Spathe reflexed pale green. Spadix erect yellowish green.

GH 5883. Clavija
seed (1)
Walnut
Unbranched shrub in forest on steep slope. Fr. light orange. Aril deep orange. Seed brown ↓ 2.5 cm diam.

USM 5884. Dicranopygium yacu-sasi Cyclanth.
GH (2) Harling
Wid-Selby! Climbing epiphyte on ~~tree~~ treetrunk. Peduncle + Spadix light green-
det. M. Madison 1977.

USM 5885. Peperomia distachya (L.) A. Dietr.
√ (2)
F
Fleshy epiphyte on tree limb. Lvs. dark green above, very pale greenish white beneath. Stem light green with dark red bark 1-5 cm. long above node. Spikes light yellow-green. det W. Burger 1971

Ambelania

5886. ~~Malouetia~~?

Apocynac.

(4)

seed 1981! Waimea

K GH F USM

Tree 7 m. tall on steep slope in forest. Milky latex. Fruits 3.2-4 mm x 3-3.3 mm, subglobose, dull yellow-orange, white within. Seeds blackish brown. Det J. Zarucchi 77.

5887. Psychotria viridis R. & P.

DET. D. SIMPSON 1976 ! C.W. HAMILTON 1989

(4) (A) → K

Aust USM K GH F

Shrub 2 m. tall in forest on steep slope. Lvs. dark green above, pale green beneath, dull. Stipules light green. Rachis pale greenish white. Fls. pale greenish.

5888. Lycianthes INAEQUILATEA (RUSBY) BITTER

DET. H. NEE 1990

(4)

Bantu seed USM GH MO F

Herb 1.5 m. tall in wet forest on steep slope. Lvs. dark green above, deep violet beneath. Petals purple. Berries bright orange at maturity.

5889. Dichorisandra

GH (1) Herb 1 m. tall in clearing or steep slope. Lvs. shiny green above, paler beneath, dull. Frs. dark purple-black.

5890. Anthurium crozii Madison sp. nov.

(2) 3 labels det. Madison 1979

(= 5747B) Ter. Herb on steep slope in forest. Peduncle green - Spathe pale brownish. Fr. spadix brown. Frs. dark wine red.

seed live Selby
USM J
GH

5891. Centropogon

USM J (2)
GH Bract Subwounded Herb 1.2 m. tall on steep slope in forest. Peduncle bracts + calyx green. Corolla tube deep red-orange. Lobes + stamen tube Tolda yellow. Anthers with purplish hairs.
A 7 K

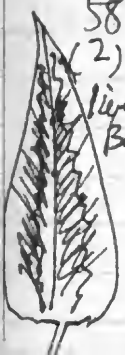
5892. Cyclanthera PHYLLANTHA HARMS

(3) DET. N. HENSOLD 2000

Seed - Waimea Herbaceous vine in thicket in open clearing. Fruits light green, white within, explosively dehiscent. Seeds light brown.
USM J
GH
F

5893. Peperomia bilobulata C. DC. Piperac.
(3) Succulent det. L. Callejas 1985.
USM Herb or rotten stump
GH along trail. Partial sun. Stem
F & petiole dark red-purple. Lfs. dark
green above, dull; light green
beneath, membranaceous. Spikes
yellowish green.

5894. Heliconia episcopalis
2 clumps
seed-trees Herb 3 m. tall in open clearing
GH-3 along road. Petiole dark purple,
1 m. long. Lf. blade 1.5 m long.
Infl. erect, distichous, Rachis
dark red. Bracts red, tipped
yellow.

5895. Calathea
(2) F
live Banta

Herb in cut over roadside.
Lvs. shiny, light green above,
dull pale green beneath, tinged
purple. Petiole light green. Pulvinus
& midrib lt. olive green - almost the same.
Youngest leaves with pattern above.

PERU: Dept. Huanuco. Prov. Leoncio Prado. Santa Rosa, along road to Marona. Hilltop secondary forest. Alt 820 m. 14 Apr 76.

5896, Erythroxylum macrophyllum Cav.

USM
F-3
GH
ECON
B
K
RB
NCU
NY
G
S
ICN
MG
MA
SP
MO
WIS
HBG
BM
U
INPA

Fotos.

Treelet 4 m. tall in secondary forest or hillside. Trunk 2 cm. DBH, dark brown. Branches horizontal mostly, grey-brown. Twigs flattened, light green. Stipule pale green turning red-brown deciduous. Lvs. dark shiny green above, thick membranaceous, smooth; dull pale glaucous green beneath, veinlet slightly darker green, midrib yellow green; Areolar tissue distinct, lines present as wounded tissue only. Bract red-brown. Pedicel & calyx greenish-cream. Petals & corolla white. Filaments white. Stigmas green. Long-styled. Fruits green turning bright red.

5896A. Erythroxylum coca
Cult. shrub on open hillsides.
foto only Badly eroded fields.

5897. Erythroxylum coca Lam.
(3)
N. V. "Coca del monte"
USM ✓ US Gar Econ
Shrub 1 m. tall in open secondary forest. Lvs. dull dark green above; pale glaucous green beneath with paler areolar area. bilineate. Sterile.

5898. Philodendron
(1)
GH
Climbing epiphyte on tree trunk. Spathe light green. Spadix brownish Lvs. dull dark green above, paler dull green beneath.

5899. Erythroxylum macrophyllum Cav.
(2)
USM ✓ GH
Shrub 1.5 m. tall. Wounded branch flowering. Calyx pale greenish green. Corolla white. Lvs. dark green above, pale glaucous green beneath.

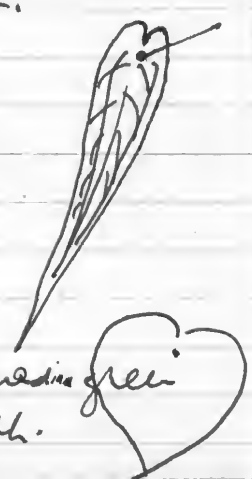
Peru: Dept. Huanuco. Prov.
Leoncio Prado. Río Monzón,
Jacintillo west of Tingo Maria.
Alt. 750 m. 16 Apr 76.

5900 Heliconia ~~variegata Loes.~~ Zebrina Plowman et al. 1982.
det. T. Plowman 1978

(=5768-A) Herb 1.2 m. tall in wet
USM forest on steep hillside. Lvs.
~~GH~~ petioled above, alternately
F pale pale green + dark blackish
green parallel to major nerves
M. dirich light yellow-green Lvs.
beneath very pale glaucous green.
live petiole dull green. Peduncle, rachis
Kress and branches light red orange.
Bracteoles light green to cream.
Pedicel, ovary & perianth all
light yellowish-green.

5900 A. Anthurium
GH (1) vouch Epiphytic herb.
Live Selby # 2-76-2

GH 5900 B. Anthurium
(1) Terr. herb 1 m.
Live Lvs. shiny both sides, medium green
Selby above, pale green beneath.



Peru: Dept Huanuco. Prov. Leoncio Prado.
16 Apr 76
Forest NE of José
~~Near~~ Tingo Maria. Coll. Inq. Loayza.
5901. Erythroxylum macrophyllum Cav.
GH - 2 (2)
seed Bonta Treelet 4 m. tall. Lvs. dark
green above, pale glaucous green
beneath. Fruits light green
turning bright red, ovoid ellip-
soid, 15 x 7 mm.

Peru. Dept. Huanuco. Prov. Leoncio Prado. Fondo Mariamilla, Dist. Emilio Valdizán on old road to La Divisoria. Alt. 1380 m.
16 APR 76. [Good friday]

5902. Aegiphila umbraculiformis Moldenke
(2) det H.N. Moldenke 1977.
live Unbranched shrub 1.5 m. tall.
USM Rachis & pedicels dull red-purple.
GH Calyx pale brown. Corolla tube cream
limb dull pink abaxially, whitish
adaxially.

5903. Psiguria quianensis subsp.
(3) occidentalis Steyerm. det. D. Simpson 76
seed Banks Vines 1981 Sub shrub 1.5 m. tall. Lvs. dark
F velvery green above with bright
GH yellow costa; deep shiny purple beneath.
USM Rachis & pedicels bright magenta
pink. Fruits black. Infl: rachis
pedicel calyx carmine red. Corolla yellow. → EI AI 30 Jul 79
MORAC.

5904. Dorstenia peruviana L.C. Berg
(4) det. C.C. Berg 1986. PARATYPE
USM Herb in wet forest to .8 m. tall.
GH Receptacle yellowish green; pale
U whitish green within.
F
Proceedings Koninkl. Nederlandse C85(1). 1982.

Sanchezia woytkowskii Leonard & Smith

foto 5905 det D. Washausen Acanth.
US (1) 1976.

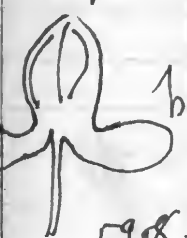
Habranthus shrub 2 m. tall in forest. Pedunicle & major bracts light green. Bracteoles bright carmine pink. Calyx carmine pink. Corolla pale pink.

5906. Solanum
(1)

Herb 1 m. in forest. Petals pale green. Young fr. fusiform, green.

GH 5907. Anthurium
USM (2)
live Selby

Climbing Epiphyte on treetrunk along quebrada. Infl. erect. Pedunicle & spathe light green. Spadix yellowish brown.



5908. Anthurium
(3)

live Selby
USM
GH
US

Terrestrial herb in forest. Stem green. Petiole, stipules, costa beneath red. Pedunicle pale pink. Spathe pale green. Spadix light green.

5909. Bromeliac.
(1)
Epiphyte on tree trunk.
Bracts all green. Calyx pale
green. Corolla cream.
pruinose,

5910. Anthurium
(1)
Climber on wet rocks along
stream. Stem + petiole dark green,
pulvinus salmon pink. - Sterile.

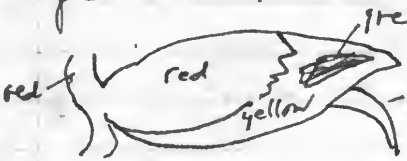
5911. Anthurium peltatum Poepp. Arac.
(2) SEL # 72-76-1
Terr. Herb. Stipules pale green.
Petiole red. Lvs. green above dull,
pale green beneath. Sterile.

5911A. Philodendron Arac.
(1)
Climber on tree trunk.
Lvs. lustrous med-green
SEL # 72-76-4

5912 Cyclanthac.
(2)
Climbing epiphyte Lvs.
dark green, shiny.
Sterile.

5913. Renealmia breviscapa P. + E.
(3) det P.J.M. Maas '76
Herb in forest. Lower bracts
seed-Kress brownish, above light green.
live Banta Ovary yellow-green. Calyx
fleshy deep yellow.
U
GH
F-

5914. Heliconia rostrata R. + P.
(3) Herb 3 m. in roadside thicket.
7 labels Infl. pendant, plane or undulate
seed Kress lightly spiraled. Rachis red,
USM (2 lab) bracts red in basal half, yellow
U along margin + apex. Fls. very pale
GH yellow. Fruits black.



Peru: Dept. Huanuco. Prov. Leoncio Prado.
La Divisoria. Entre Río Azul + La Margarita.
Alt. 1500 m. 17 Apr 76.

5915. Dimerocostus argenteus (Ruiz + Pavón) Maas
(4) labels Herb 5 m. tall in swampy open roadside.
seed-Banta Lvs. silvery beneath. Bracts + calyx light
Kress green. Corolla + stamen cream. Staminodes
G# cream toward base, yellow limb.
USM Fruit cream; Seeds black.
U Selby

Peru: Dept. Huanuco. Prov. Leoncio Prado. La Divisoria. Plantación La Margarita. Alt. 1550 m. 17 Apr. 76. Forest.

5916. Dalbergaria inaequilatera (Poepp.) Wiehl. Gesneriaceae
(1) Epiphyte on treetrunk.
Calyx brownish green. Corolla tube red, lobes abaxially red, adaxially pale pink with 4 dark purple spots on lower lobes. det. H. Wiehler 1981.
GH

5917. Salvia
(2)
USM J Herb along trail in forest.
GH Leaves dark green above, nerves dark purple; dark purple beneath. Peduncle lt. green. Bracts lt. green, purple tipped. Calyx pale green upper lobe purple. Corolla tube white lobes purple. Filaments purple. Sterile apical bracts white when present.

5918. Piper
Foto (4) Subshrub 1m. in sun along trail.
USM J Stipules white. Leaves green.
GH F U Spike white

5919. Justicia Acanth.

US (1)
foto Subshrub 1.5 m. tall in open thicket. Bracts pale brownish 2 ax-illy, light green adax illy.
Calyx ~~Corolla~~ pale brownish. Corolla lt. red orange.

5920. Heliconia subulata
(1) det. L. Andersson 1982.
foto Herb 3 m. tall in open thicket along trail. Peduncle green. Bracts
GH deep carmine red, the lowermost with green along keel. Pedicels
(A) DUKE red. Ovary black. Corolla bright greenish yellow.

5921. Lycianthes
(2) Subshrub in thicket. Calyx + USM] teeth pale green. Fruit greenish white.

(Hanst.) Wiehl.

5922. Grasteranthus wendlandianus Gesneriad
[=5752B] (2) det. L. Skog 1987.
Seed Herb in forest. Lvs deeply pleated
Selby dark green above, pale green beneath.
USM] GH Calyx in fruit orange. Berry dull orange

5923. Calathea affi. ornata
(4)

Live Banta USM F

Herb 2.5 m. tall in forest margin. Petiole green. Pulvinus dark purple brown. Lvs. dark green above, with slightly dark area along costa; beneath dark purple throughout; but nearby plants pale green beneath with purple costa + light green pulvinus. Juvenile dark green with white lines parallel lateral nerves, dark purple beneath. Peduncle 1 m. long, green. Bracts dull brownish purple. Capsules orange. Calyx remnant cream.

5924. Calathea
(3)

Live Banta USM GH F

Herb to 1 m. tall in forest or steep hillsides. Lvs. green above with soft sheen, ~~major nerves~~ ~~other~~ nerves paired (every 3rd or 4th), pleated effect. Lvs. pale green beneath, costa yellow; membranaceous. Pulvinus yellowish, petiole light

(A) K.

Green. Peduncle light green, heavily white. Bracts cream, striped very dark purple. Minor Bracteoles mostly dark purple. Bracts dull grey tipped purple. Calyx + corolla tube white. Petals pale yellow. Bracts thin chaffy.

GH 5925. Anthurium
live selby (1)

Terrestrial herb in forest. Spathe light green. Spadix yellowish green. Lvs shiny green above, pale green beneath.

Homalomena peltata
det. M. Madison 76. Araceae

5926.
live selby (1)

GH

Terrestrial herb in forest along Quebrada. Lvs. peltate dull dark green above, pale green beneath. Sterile.

5927. Justicia
(3)

GH
MSM
MS

Herb 1m tall in forest clearing. Fls. pale lavender throughout.

5928. Arthurium

(wire only Selby) (1) Climbing epiphyte. Lvs. cordate, rugose.

PERU: Dept. Huanuco. Tingo Maria. Jardin Botánico de Tingo Maria. Alt. 670 m. 19 Apr 76.

Bur. & K. Schum.

5929. Stizophyllum inaequilaterum Bignon.

USM MO (2) Climbing vine. Hairs dark brown. Sterile. Not planted.

det. A. Gentry 1976.

5930. Bomarea

(A) (2)

USM GH Vine 2 m. long in open place. Not planted. Infl. 7-peduncled. Rachis & bracts green. Ovary green. Outer tepals pale pink abaxially, greenish apically; adaxially pinkish white with many dark purple spots. Inner tepals pale yellow orange basally, limb greenish cream, with dark purple-brown spots adaxially. Filaments basally white, reddish purple apically.

5931. Solanum?
(2)

(A) USM GH

Tree 6 m. tall in garden. Fruits pendulous green.

Peru: Dept. Huanuco. Prov. Leoncio Prado. Naranjillo, north of Tingo Maria. Fundo DoS de Mayo. Alt. 610 m. 20 Apr 56.

(A) TK

5932. Erythroxylum coca Lam
(5) n.v. "coca"

fotos. USM GH F UPS NEW

Cult. shrub 1.5 m. tall, 15 years old. Lvs. subshiny, light green above, pale green beneath, costa yellowish-green, areolae paler. Fruits dull red-orange, ovoid to oblong-ellipsoid.

5933. Erythroxylum coca Lam.
(3) "coca del monte"

fotos USM ECON-# F

Shrub 2 m. tall in recently cut secondary woods, apparently remaining from old cocal. Lvs. dull dark green above, pale green beneath, linea lighter, areolae concolorous. Sterile.
+ seedlings.

5934. Calathea

F
GH
USM
(3)

live Barro

Herb 1 m. tall growing under secondary thicket in ~~particles~~ low swampy area along road. Sheaths & petioles light gray. Pulvinus olive green. Leaf brush patterned: dark green above costa & margin with light yellow green area midway between; pale glaucous green beneath.

Peru: Dept. San Martin. Prov. Mariscal Caceres. Dist. Uchiza. Aspusana. 20 Apr 78.
Alt. ca 500 m.

5935. Erythroxylum aff. macrophyllum Cav.
(12)

USM F GH ECON NCU — NY K G

Tree 6-7 m. tall in cut-over primary forest on hillside. Yellow clay soil. Trunk 5-6 cm. diameter, subterete, bark smooth, light brown. Branches few, open, lowest 4 m. from ground, horizontal, then drooping slightly. Twigs light brown, flattened at first, terete 2 bout 4 nodes. Stipules very ephemeral, thin membranaceous, light brown. Lvs. dark shiny green above, costa light yellow green beneath dull, pale green lighter near costa but exarolate + not lineate, sterile.

voucher
Lf → L Rivier
11 Apr 78
fotos.

(A) 71 K

subcorizaceous.

Foliar Lichens: det. Martha Sherwood 1977.

5935 A. (on 5935 leaves)
1. Tricharia sp.
2. Porina rufula (Krmph.) Vain
3. Porina sp.
4. Strigula nemathora Mont.

5936. Anthurium
(2)
GH vouch. Epiphyte on fallen tree.
USM Lvs. subbery, dark green above,
SEL #75-76-1 dull; pale green beneath.
Sterile.

5937. Geonoma poeppigiana
(2) Mart. vel Wendl. aff.
USM
BH Palm with short trunk in
forest. Infl. erect, dark red.
FRS. green turning black.
det HE Moore, Jr. '76

5938. Philodendron
(2)
(A) Epiphyte on tree limb.
USM Lvs. subcoriaceous, dark shiny
GH green above, pale green beneath;
petioles spongy, inflated.
(A) TK Spathe at anthesis inflated,
ovoid in lower part; liver
SEL #75-76-2 green with pink blush near
base; red within at base.
Spadix creamy white.

5938A. Ant.
"Isula"

USF
KUS
F
USM
GH-2

5939. Tournefortia glabra L. Boraginaceae
(8) Subshrub 1.5 m. ~~Herb~~ in low wet secondary forest along Quebrada. Fls. greenish white. Infruct. pendulous. Fruits pure white. Very showy.
Det. R. Liesner 1978.

Banks wanted! Selby
A → K

5940. Lophophytum weddellii Hook. f. Balanoph.
GH A det B. Hansen 1978.
C (3) Root parasite, emerging a large clump .6 m. diameter in yellow clay
(labels made!) soil in moist forest, hillside. Thallus
FOTOS: F hard, woody, with spiraled scales,
bark becoming harder with irregular woody
pith ← bumps dotted with lenticels, Infl. hard at first, becoming spongy at maturity, covered with dark brown, brittle scales. Scales with
A → K inner + outer lamina, the inner attached to infl. axis on stout woody stalk. Young ♂ fls. white anthers, turning pink then dark rusty brown.

5941. Cyperus giganteus Vahl
(2) det. T. Koyama 1977.
USM Tall herb to 3 m. in open swamp.
GH Sterile. Along road next to
foto → F Aguajal.

Peru: Dept. Huanuco. Prov. Leoncio Prado. Jardin Botanico de Tingo Maria. Alt. 670 m. 21 Apr 76.

5942.
(2)
USM
GH
Fern-epiphytic on treetrunk. Leaves 3 m. long, pendant.

5943. Anona
(4)
USM
U
"guano guano"
Cult. tree 5 m. tall. Lvs. shiny, light green. Fl. cauliflorous dull greenish yellow. Bark light grey brown, lenticellate.

5944. Urena lobata L.
(2)
USM
ECON
"malva silvestre"
Cult. Shrub 2 m. tall. Fls. pink. Brought from Pendencia near Pucahuasi.
det. Magda Chanco, May 76.

5945. Malachra capitata L.
(2)
USM
ECON
"malva"
det. Magda Chanco, May 76.
Subshrub 1 m. tall. Fls. bright yellow.
Remedy for kidney irritations

5946. Pseudosamanea guachapele (HBK.) Harms Mimos.
F (3) "guillo sisa" det. C. Niezgoda 1980.
USM ✓ Cult. tree 15 m. tall with
A-JP spreading crown. Calyx + corolla
! Ⓐ→K light green. Filaments cream
turning yellow.

5947. Cassia rizziana Vog.
"caracha cáspi"
USM ✓ Cult. Treelet 5 m. tall. Fls. cauli-
NY florous on older branches,
ECON petals dull yellow. Fruits
USM green. det. R. Barneby 1976
Ⓐ→K

5948. Dialyanthera parvifolia Mgf. Myristic.
(4) det. W. Rodrigues 1979
USM ✓ Cult. Tree 7 m. tall with open
F spreading branches. Fls.
ECON greenish yellow, From Tocache.
MO Ⓐ→K

5949.
USM (2) Cult. tree 7 m. Fls. buds pale
MO green. Brought from Roca,
near Tarumayo.

F 5950. Trichipteris procera (Willd.) Tryon fern
USM Cult. tree fern 3 m. tall.
GH (6) Lvs. 2 m. long, 13 pr. of pinnae. det R G Stolze
U.

Peru: Dept. Huanuco. Prov. Leoncio Prado.

5951. Adiantum

Bantu

Terrestrial fern on steep cliff in forest.

5952. Juanulloa?

(7)

1 vine

Bantu

Lianoid in steep forested hillside. Lvs. ~~bright~~ dark green, leathery. Sterile beneath. lt. yellowish green

5953. Piper

Bantu

(6)

shrub

Spreading shrub 1.5 m. tall. Spikes bright red.

5954. Nectandra

(1)

#Moena

foto

Shrub 2 m tall in forest. Receptacle red. Fruit dark green dotted with yellowish spots.